

CLASS 221, ARTICLE DISPENSING**SECTION I - CLASS DEFINITION****GENERAL STATEMENT OF CLASS SUBJECT MATTER**

(A) The word “dispensing” is of such broad connotation in both dictionary definition and in the language of the published art relative to material handling that it is too indefinite to serve as a base for defining the limits and nature of a technological classification. Therefore a series of limits are set forth in detail to outline a definition of the phrase “article dispensing” as it is used in this class. Subsequent reference to the phrase “article dispensing” always refers to devices within such limits.

(B) Article dispensing in a broad sense is that type of material handling which deals with certain types of methods of structures which allow or cause permissive or compulsive separation or a discrete article or articles from a source of supply of such articles which includes more articles than the number removed in any one operation. There must always be a supply container or other source means for providing a plurality of articles to be handled, and the article or articles must be handled by mechanism or be subject to manual handling, as a discrete solid entity, as distinguished from a fluent mass. The source means must be one in which there is an accumulation of articles and may be a skeletal chute structure or a mere support for a stack of articles.

(C) The types of means controlling separation of articles from sources of supply included in this class are described in the following subsections. Processes and apparatus not within limits of subject matter therein described are not considered to be dispensers under this class definition and are classified in appropriate other existing classifications. Article dispensers which are included are characterized by the subject matter of the following sections:

Discharge Outlet Means

Supply source Container or Holder Structure (Static Structure)

Releasing Means Structure

Discharge Assisting Means

Cellular Magazine Type (Miscellaneous)

(1) Discharge Outlet Means

A mere opening coextensive with some dimension of articles to be dispensed, or larger with a normal mode of operation involving mere manual removal or gravity discharge, is not enough to characterize a dispenser for this class. An outlet having means to retard successive articles is considered to be a dispensing type outlet characteristic of article dispensers properly classifiable in this class.

The means to retard must be something other than the first article and something other than mere static outlet opening shapes and includes arrangements wherein an article is deformed in passing a rigid outlet or vice versa, i.e., the outlet is too small to pass the article in any of its dimensions as stored, either the article or the edges of the outlet being deformed.

The above limitations are not affected by the presence or absence of a closure member. Thus, a supply source provided with outlet means as described in the preceding paragraphs, and having also closure means is proper subject matter for this class, whereas a source of supply (container) provided with a conventional opening and a closure therefor is proper subject matter for the appropriate receptacle or support class.

(2) Supply Source Container Or Holder Structure (Static Structures)

Devices in which the configuration or internal structure of the container or holder for the articles to be dispensed is specialized to the problem of the separation of articles being dealt out from a source, are considered to be dispensers and are included in this class. Examples of such structures included in this class with the limits thereof are:

(a) Internal structure of supply receptacles, as means at or near the outlet for retarding a succeeding article while the leading article is removed or for imparting a transverse article segregating motion to the articles.

(b) Trap chamber structure, that is, supply container configuration which creates identifiable trap means to isolate the leading article from the remainder of the articles for ease of removal. It is usually characterized by abrupt change of direction of the path of movement of the articles to hold back otherwise freely sliding or rolling succeeding articles in contact with the article or articles available for removal at one operation.

(c) Container, chute or rack structures of nonrectilinear configuration may be included in this class under certain

circumstances such as (1) when the curve or angular turn in the container, chute or rack is such as to change the nature of a stack or arrangement of articles (as from end to end to side by side, or from a double row to a single row) so that article removal from the ultimate arrangement is easier than it would otherwise have been or, (2) when the curve or angular turn is specifically modified at or near the egress point to present an article or articles in such a way that they are relatively easily removable, as by changing the relative bearing on such article or articles of the succeeding articles on such article or articles. In this connection it is noted that it is common for article supporting rack structure to be curved or angular for purposes of space conservation or for controlling the direction or disposition of the inlet and/or outlet, and it is not intended that such structures should be classified in this class. It is also recognized that as a rack structure approaches a horizontal disposition the relative ease of removing articles increases, but this is considered to be a mere incident to the rack problem of space conservation and directional disposition and not to warrant classification in this dispensing class.

(3) Releasing Means Structure

A source of supply of articles having an outlet or outlet path provided with mechanical means to control the movement of articles through the outlet or along the path by releasing the foremost article or articles for unassisted gravity movement while restraining movement of succeeding articles is a dispenser under this class. In the cellular magazine type this release may be effected by the progressive collapse of a collapsible or flexible cellular structure.

(4) Discharge Assisting Means

A source of supply of articles having means to assist discharge from the source by separation of an article or articles from the source, is a dispenser classifiable in this class, unless otherwise classified. For this purpose, any nongravity means for urging articles toward or through an outlet opening or for removing the remainder of the articles away from the article or articles to be segregated, is a discharge assistant.

For example, an ejector element acting directly on an article to be dispensed to force it through a related outlet is a discharge assistant. Agitating or vibrating means acting on articles in a supply container may also be considered to be discharge assistant means.

A follower or a conveyor element acting on the entire supply of the source at one time may serve to establish a

dispensing combination for this class if a discharge outlet or other arrangement is provided whereby actuation of the conveyor or follower is effective to affirmatively separate an article or articles from the remainder of the supply. However, a supply container having a follower which urges articles simultaneously toward an outlet but which does not have some other feature which is recognized as characteristic of a dispenser in this class is not classifiable herein. Operation of the follower to cause successive affirmative separation of an article or articles from a source of supply as by the article falling off its support is considered a dispensing characteristic which meets the requirements of "General Statement Of Class Subject Matter" C "(1) Discharge Outlet Means", and such devices are classified as a dispenser in this class.

(5) Cellular Magazine Type (Miscellaneous)

The special type of article dispenser which has a supply source container in which each article is retained in a separate compartment, cell or holder, and which is designated a "cellular magazine" in this class (see subclasses 25 and 69+) presents certain problems in its relationship to the various cabinet and receptacle arts and requires some deviation from the general pattern described hereinabove. Cellular sources or magazines are included in this class if:

- (1) a common discharge assistant operates at different times or to different degrees in more than one of the compartments;
- (2) a unitary control is provided for discharging means operating at different times or to different degrees on articles in more than one of the compartments;
- (3) a single discharge outlet of less extent than the combined width of all the cells is common to more than one of the compartments and articles are released (as by unassisted gravitational movement without inversion of the apparatus), impelled (as by a discharge assistant), or carried by relative movement of the said magazine to or through an outer housing outlet so that manual grasping thereof is enhanced by such movement, or are at least partially released or ejected therefrom; or
- (4) movement of the cellular structure, or portions thereof relative to an enclosure or support (including collapse of the cell structure) results in gravity or non-gravity discharge of articles from the cells.

Generally the failure to include at least one of the features outlined in the preceding paragraph or in subsections (1) to (4) is evidence that classification is not in

this class but in appropriate other cabinet, support or rack classification. For example, cellular sources or magazines, with the various cells movable past an outlet door or opening in an enclosing cabinet or casing, in which articles are removed by reaching inside and grasping the articles are not included, nor are such devices requiring inversion or other bodily movement to cause or allow the removal of articles. Such devices are classified elsewhere in the various other receptacle classes (see "Receptacles, Cabinets, Racks, and Other Static Structures" below).

The type of article dispenser in which articles are released to or discharged upon an article catching member or trap for manual removal is treated as a special type. In general, such devices are included in this class on the basis of the inclusion of at least one of the dispensing features described in subsections (1) to (4) of this section of the class definition. However, as a special case, combinations in which a mere closure, which is not of a dispensing type, controls release of articles to a trap for manual removal therefrom are classified in this class (221). This placement of art is predicated upon the proposition that the trap is an element which goes beyond mere receptacle-closure structure and is better classified in a dispensing art.

In general the heading "miscellaneous" is restricted because at least one of the separation or segregation means mentioned in subsections (1) to (4) of this section of the class definition is actually present in most of the "special types" of article dispensers included in this class.

Dispensers of the captive article type and of the article orienting type are classifiable in this class subject only to the general limitations of preceding subsections (1) to (4). Dispensers of the type in which flexible articles are distorted concurrently with their separation from the supply source (subclasses 33+) are similarly classifiable in this class subject to the general limitation of the subsections (1) to (4), it being noted that the underlying and characterizing feature of this entire group is expressed in the second paragraph of subsection (1). Dispensers of the type in which the supply container is movably mounted for dispensing (subclasses 186+) are characterized in that, in some cases, the relative movement required to effect release or ejection of articles is effected by movement of the supply container relative to releasing or discharge assisting means which may be stationary, such relative motion resulting in a mode of operation which fulfills the requirement of one of the subsections (1) to (4).

EXPLANATORY NOTES ON SCOPE OF CLASS

This class is intended to provide a residual classification for the basic subject matter defined in "General Statement Of Class Subject Matter" of this class definition and takes such subject matter where not otherwise provided for.

This class also takes combinations of article dispensers with other subject matter not otherwise provided for. In this connection it should be noted that the basic subject matter herein provided for is found in many other arts, including the manufacturing, material treating and material handling arts, as a subcombination, per se, and as an included part of more comprehensive combinations provided for in such classes.

Other Sections of this class definition, particularly "Article Treatment Or Modification (Including Assembly)" and "Article Assorting And/Or Orienting", specifically outline the relationships of this class to the various manufacturing, treating and handling classes and to other related classes and the statements of class lines contained therein is indicative of present classification and placement of art.

It is contemplated that the various combination classes and related material handling classes will eventually be cleared of subcombinations which are within the class subject matter of this class as defined in "General Statement Of Class Subject Matter" of this definition. As such classes are cleared of such art the statement of the line between such classes and this class (221) will be altered to indicate the disposition of the art.

ARTICLE TREATMENT OR MODIFICATION (INCLUDING ASSEMBLY)

Article dispensers are found in all classes dealing with the manufacture or treatment of articles, and particularly in classes having feeding, magazine or article handling subclasses. In general, the assignment of patents in manufacturing and article treating classes has been on the basis of the nondispensing operation, when the means or steps for performing the nondispensing operation are claimed in any detail. When the means or steps for performing the nondispensing operation are not claimed or are claimed broadly assignment has been and will continue to be to the class taking the disclosed operation when magazine and work material or article feeding subclasses occur in such art class and are designated and defined to receive such patents. Classes not having special subclasses of this type will continue to take arti-

cle dispensers which are not claimed in significant combination with, or as structurally specifically adapted for, the machines or work of the art classes, only when such classes have large bodies of art on dispensing, per se. In the absence of such large bodies of art or special subclasses of the type mentioned, classification is in the appropriate subclass of this class (221).

Means or steps for performing the material modifying or treating operation are not considered to be claimed significantly when they are included only nominally or merely as a means for receiving or supporting a separated or segregated article. Thus, inclusion of a holder, turret, arbor or receiver of some other nature, disclosed as an element of a work modifying or treating machine parts and/or their working relationship with one another are included, classification is in the appropriate work modifying or treating art.

Many dispensers include means to manipulate articles after the segregation of articles from the supply, and such organizations are common as subcombinations of work modifying and treating combination disclosures. This class (221) takes article feeders under its class definition including subsequent manipulation to and from disclosed work stations where such work stations are included by name only. This class will also take article feeders including such manipulation of the work as is considered to involve simple movement of the article characteristic of general utility handling as distinguished from specialized work modifier feeding. As examples, this class will take article feeders which bodily move articles along a rectilinear or a simple curved path, either continually or intermittently, towards or through the position of a nominally included tool. However, movement of the tool, axial rotation of the articles for purposes other than segregation, orienting or mere handling, retrograde motion, combined oscillation and forwarding motion, and other complex motions of the articles having utility only in combination with a disclosed tool are excluded and devices having such motion are classified in the appropriate work modifying class.

Class 221 provides for article feeding including delivery of articles to a claimed work holder or to a hold-down means (see Subclass References to the Current Class). Subject to otherwise existing class lines, therefore, Class 221 will take such subject matter disclosed as a subcombination of an article modifying or treating combination.

Article dispensing means within the class definition combined with a nominal work modifying machine and

including a mere common drive or simple synchronization are included in this class. But where a modifying machine is nominally included and there is some automatic intercontrol between the modifying machine and the dispenser, classification is in the appropriate work modifying class.

- (1) Note. Classes dealing with article treatment or modification are each subject to the general line note as expressed hereinabove in this section of the class definition. In the SEARCH CLASS notes below referencing this section, a specific statement of the class line indicating that this class (221) takes such subcombinations is an indication that the art class involved does not have subclasses relating to article feeders, per se, which are adapted to general article handling utility and does not contain an appreciable body of art relating to such subject matter.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

COMBINATIONS WITH THE SUBJECT MATTER OF OTHER CLASSES

Combinations with article treatment or modification classes (including assembly) are fully treated in the section "Article Treatment or Modification (Including Assembly)". Article dispensers involving article handling, assorting and/or orienting are considered to be species of article handling rather than combinations and are elsewhere treated (See sections "Article And Material Handling" and "Receptacles, Cabinets, Racks And Other Static Structures").

Other combinations of the subject matter of this class with that of other classes are classified in this class when no other existing classification provides for such combinations. It should be noted that the mere fact of the combination is not conclusive, since in many cases, the degree of inclusion of details of either the outside subject matter or the article dispenser has been and is now determinative of the classification. The lines stated in the following Search Class note indicate, insofar as is known, the disposition of such combinations in other arts and therefore the degree to which this class (221) may provide for them.

ARTICLE AND MATERIAL HANDLING

This class (221) is the residual classification for the types of article handling defined as article dispensing in “General Statement Of Class Subject Matter” and “Explanatory Notes On Scope Of Class” . As such, it may be properly considered a species under generic article or material handling Class 214. This class therefore, takes article handling of the dispensing type, as defined in “General Statement Of Class Subject Matter” and “Explanatory Notes On Scope Of Class” and in the combinations and special types set forth in “Article Treatment Or Modification (Including Assembly)”, subject to the limitations and class line notes of the aforementioned sections, where it is not otherwise provided for.

This class includes combinations of dispensing as defined in “General Statement Of Class Subject Matter” and “Explanatory Notes On Scope Of Class” with means to further handle or manipulate the segregated articles subsequent to the separation from the source of supply, where such subsequent handling or manipulation is not otherwise provided for. In this connection attention is directed to subclasses 171+, 290+ and particularly subclasses 224+ of this class. This subject matter is related to article treatment or modification combination disclosures and is fully treated in “Article Treatment Or Modification (Including Assembly),” above.

The SEARCH CLASS notes in References To Other Classes that reference this section list known loci of related article and material handling art.

ARTICLE ASSORTING AND/OR ORIENTING

Article handling, as defined in “General Statement Of Class Subject Matter” and “Explanatory Notes On Scope Of Class” of this class definition, including means to arrange or align asymmetric articles so that the variations for symmetry are all turned (oriented) in a desired direction, is considered to be a special type of article dispensing and is included in this class, unless otherwise provided for.

Orienting, when separation from a supply as provided for in this class is involved, is distinguishable from assorting, which is generally provided for in Class 209, Classifying, Separating, and Assorting Solids, in that assorting involves the separation of articles one from the other based upon an actual physical difference of such articles, while orienting deals with similar articles (asymmetric in nature) on the basis of the alignment of one or more axes of the articles. Class 221 includes

both the separation of articles from the supply on the basis of the different relative orientation of articles in a confused mass, so that only articles having a desired position are separated, and also the orienting of articles as a manipulation following dispensing of the type provided for in this class and Class 222.

When a construction or claims are generic to assorting and orienting, as when oversize or improperly positioned articles are both prevented from passing through shaped outlets, classification is in Class 209.

RECEPTACLES, CABINETS, RACKS AND OTHER STATIC STRUCTURES

This class is the residual classification for the types of article dispensing identified in “General Statement Of Class Subject Matter” and “Explanatory Notes On Scope Of Class” of this class definition. Therefore, relative to the package, receptacle, cabinet, rack and static structure arts, this class takes dispensing structures, unless the existence in one of such classes of a body of art or of a subclass directed to similar dispensing means indicates that the particular dispensing structure is classified there. In this connection particular attention is directed to subsection (2) of “General Statement Of Class Subject Matter”, C of this class definition for a discussion of static structures and the nature of the structural variations therein which are considered to be characteristic of article dispensing.

If a closure means does not, of itself, incorporate a feature requiring classification in this class (as set forth in “General Statement Of Class Subject Matter” and “Explanatory Notes On Scope Of Class”) . its presence or absence does not affect classification as between this class and the appropriate receptacle class. See the final paragraph of “General Statement Of Class Subject Matter” C “(1) Discharge Outlet Means” of this class definition.

SECTION III - SUBCLASS REFERENCES TO THE CURRENT CLASS

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 27+, for dispensers of the captive article type.
- 33+, for dispensers of the type in which flexible articles are distorted concurrently with their separation from the supply source.
- 156+, for dispensers of the article orienting type.
- 186+, for dispensers of the type in which the supply container is movably mounted for dispensing.

- 191+, for article dispenser in which articles are released to or discharged upon an article catching member or trap for manual removal is treated as a special type.
- 287, for device or for a structural arrangement for the oriented withdrawal of articles from random supply (compare with subclasses 163+) (see “Article Assorting and/or Orienting” above)
- 288+, for a device for eliminating the misoriented one of seriatim advancing articles (typically, returning them to the random supply), leaving only those properly oriented on the conveyor for continued advance; (compare with subclasses 159+).
- 239, for means to receive and support segregated articles after they have been dispensed by the discharge means and have some work holding or hold-down means.
- 294, for device to receive and support segregated articles after they have been dispensed by the discharge means and have some work holding or hold-down means.
- 42, Firearms, various magazine subclasses for cartridge magazines and combinations thereof with guns. (see “Combinations With the Subject Matter of Other Classes” above)
- 48, Gas: Heating and Illuminating, particularly subclass 47 for acetylene gas generators having means to feed carbide cartridges. (see “Article Treatment Or Modification (Including Assembly)” above)
- 53, Package Making. as between Classes 53 and 221, Class 221 takes article feeding subcombinations and combinations subject to the limitations of the class definition of Class 221. See subclasses 384.1+ and 571+ of Class 53 for devices for dispensing and opening bags. (see “Article Treatment Or Modification (Including Assembly)” above)
- 53, Package Making, for butter and cheese cutters combined with plate dispensers. (see “Combinations With the Subject Matter of Other Classes” above)
- 62, Refrigeration. See the class definition of Class 62 for a statement of the line between the classes. (see “Article Treatment Or Modification (Including Assembly)” above)

SECTION IV - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

- 29, Metal Working, especially subclasses 809+ for magazines, supply means for assembling and disassembling apparatus. (see “Article Treatment Or Modification (Including Assembly)” above)
- 30, Cutlery, subclasses 124+, for cutlery combined with material holding means. (see “Article Treatment Or Modification (Including Assembly)” above)
- 30, Cutlery, subclass 40 for razors claimed in combination with blade holding magazines. (see “Combinations With the Subject Matter of Other Classes” above)
- 40, Card, Picture, or Sign Exhibiting, appropriate subclasses for exhibitors where no significant dispensing features are claimed, even though a dispenser is named as operating the exhibitor, and especially subclasses 380+, 476, 491+, and 508+ for exhibitors having display handling means in the nature of dispensers. See the class definition of Class 40, which also states the line between the classes. (see “Combinations With the Subject Matter of Other Classes” above)
- 65, Glass Manufacturing, subclasses 138+ for glassworking apparatus for making electronic envelope headers, terminals, or stems including means to dispense parts thereto, and subclasses 146+ for means to feed diverse material to glassworking apparatus. (see “Article Treatment Or Modification (Including Assembly)” above)
- 68, Textiles: Fluid Treating Apparatus, particularly subclass 210 for loaders and unloaders for textile fluid treating apparatus. (see “Article Treatment Or Modification (Including Assembly)” above)
- 72, Metal Deforming, for plastic deformation of metal combined with work and/or product feed. As between Classes 72 and 221 takes article feeding subcombinations and combinations subject to the limitations of the class definition of Class 221. (see “Article Treatment Or Modification (Including Assembly)” above)
- 73, Measuring and Testing, appropriate subclasses. As between Classes 221 and 73, the combination of an article dispenser and means to test some quality of the article other than its mere presence, is classified in appropriate subclasses of Class 73. However, the mere inclusion, in an article dispenser, of means to sense the presence or absence of an article is properly classifiable in this class (221). (see “Combinations

- With the Subject Matter of Other Classes” above)
- 82, Turning, particularly subclasses 124+ for lathes having work feeding and/or removing means included therewith. (see “Article Treatment Or Modification (Including Assembly)” above)
- 86, Ammunition and Explosive-Charge Making, particularly subclasses 45+ and 47+ for feeding devices and for cartridge packing including feeding devices, respectively. (see “Article Treatment Or Modification (Including Assembly)” above)
- 89, Ordnance, appropriate subclasses, for article feeding or dispensing structures specific to the purpose of the apparatus provided for in that class, and see specifically subclasses 33.01+ for subcombinations involving cartridge feeding to guns and for nominal combinations with such guns. Class 89, has its own article subcombination subclasses and as between Classes 221 and 89, Class 89 takes such subcombinations. (see “Combinations With the Subject Matter of Other Classes” above)
- 99, Foods and Beverages: Apparatus, subclass 450.1, for an edible laminated product (e.g., pie, sandwich, etc.), making apparatus including means to feed edible preforms to an assembly or stacking station. (see “Article Treatment Or Modification (Including Assembly)” above)
- 100, Presses, particularly subclasses 215+ for press structures having means to deposit material thereon and subclass 218 for means to eject material therefrom. As between Classes 100 and 221, Class 221 takes article feeding subcombinations and combinations (see “Article Treatment Or Modification (Including Assembly)” above)
- 101, Printing, particularly subclass 11, 37, 40, 43, and 44, for special article feeding and delivering. (see “Article Treatment Or Modification (Including Assembly)” above)
- 102, Ammunition and Explosives, subclass 504 for line carrying or filamentary material distributing projectiles. (see “Combinations With the Subject Matter of Other Classes” above)
- 111, Planting, appropriate subclasses, particularly subclasses 34+ for dispensing devices combined with means for loosening the soil or forming cavities therein or otherwise treating the soil. The class lines are set forth in the class definition of Class 111 and in (2) Note thereto. (see “Combinations With the Subject Matter of Other Classes” above)
- 111, Planting, subclasses 104+ for a plant dispenser claimed in combination with a plant setting machine; and subclasses 170+ for seed dispensers claimed in combination with drilling machines. (see “Article and Material Handling” above)
- 112, Sewing, particularly subclass 106 and 113 for feeding devices in combination with article attaching machines. (see “Article Treatment Or Modification (Including Assembly)” above)
- 116, Signals and Indicators, for signal structure combined with article dispensing where no significant dispensing features are claimed, even though a dispenser is named as operating the signal or indicator. Class 221 takes combinations of dispensers under the class definition with signaling means except in such cases where the article dispensing means is not specifically defined and is claimed as associated with specific signal means. See subclass 32 of Class 116 for devices for releasing identification tags on vehicle collision. (see “Combinations With the Subject Matter of Other Classes” above)
- 118, Coating Apparatus, subclasses 209+ for solid applicator type coating apparatus including work handling or work supporting means, and subclasses 500+ for coating apparatus including work holders or handling devices. For a statement of the line between the classes see the class definition of Class 118. (see “Article Treatment Or Modification (Including Assembly)” above)
- 124, Mechanical Guns and Projectors, subclasses 45+ for projectile feeding magazines or mechanical projecting devices, and subclasses 51.1+ for magazines operating to feed projectiles mechanically into position to be projected by other mechanical means. As between Class 221 and Class 124, subcombinations disclosed for use in a Class 124 combination remain in that class, since Class 124 has such magazine feeding subcombination subclasses. (see “Combinations With the Subject Matter of Other Classes” above)
- 131, Tobacco, subclass 74 for tube filling type of cigar or cigarette making machines with means to feed the tubes to be filled to such machines, and subclass 250.1 for article dispensers combined with cigar or cigarette end cutters. (see “Article Treatment Or Modification (Including Assembly)” above)
- 134, Cleaning and Liquid Contact With Solids, as between Classes 134 and 221, Class 221 takes

- article feeding subcombinations and combinations subject to the limitations of the class definition of Class 221. The line is also stated in the class definition of Class 134. (see “Article Treatment Or Modification (Including Assembly)” above)
- 139, Textiles: Weaving, particularly subclasses 248 through 250 for rotary bobbin delivering magazines. (see “Article Treatment Or Modification (Including Assembly)” above)
- 140, Wireworking, subclass 27, 38, 53, and 54 for magazine feeders for feeding slats, wire, etc. (see “Article Treatment Or Modification (Including Assembly)” above)
- 141, Fluent Material Handling, With Receiver or Receiver Coacting Means, subclasses 173+ for combinations of receiver dispensers and fluent material dispensers where the apparatus includes means for relating the dispensed receiver to the fluent material dispenser, and see the definition of that class (141). (see “Article Treatment Or Modification (Including Assembly)” above)
- 144, Woodworking, particularly subclass 61 for match box filling machines; subclass 64 for hopper feed of match splints for filling, dipping and frames; subclass 66 for miscellaneous match splint feeding machines; and subclass 245 for blank feeders. (see “Article Treatment Or Modification (Including Assembly)” above)
- 164, Metal Founding, in the various “work feeding” subclasses therein. (see “Article Treatment Or Modification (Including Assembly)” above)
- 186, Merchandising, subclasses 38+ and 52+, respectively, for article dispensers combined with or included in dining room or store service combinations. (see “Article and Material Handling” above)
- 193, Conveyors, Chutes, Skids, Guides, and Ways, subclass 32 and 40 for chutes having means for retarding the velocity of articles therein, which means may release the articles successively. (see “Article and Material Handling” above)
- 194, Check-Actuated Control Mechanisms, for article dispensing devices having specific check-control mechanism. The class lines of Class 194 are expressed in the class definition of that class (194), and particularly in (2) Note. thereof. (see “Combinations With the Subject Matter of Other Classes” above)
- 198, Conveyors: Power-Driven, subclass 311, 359+, and 523+ for a power-driven conveyor combined with a gravity conveyor such as a hopper or chute; subclass 373 for a conveyor having means for changing the attitude of the conveyed load relative to the conveying direction; subclass 418 for a system of plural conveyors for establishing and moving a group of items; and subclass 434 for a system of plural conveyors of arranging or rearranging a stream or streams of items. (see “Article and Material Handling” above)
- 198, Conveyors: Power-Driven, subclasses 373+ for a conveyor having means for changing the attitude of the conveyed load relative to the conveying direction, particularly subclasses 393 and 396+ for the withdrawal of articles from a scrambled supply; and subclass 395 for a control means responsive to the sensing of an improperly oriented item, 234+, for a device for orienting articles in the seriatim progress along the conveyor; compare the subclasses 171+ in this instant class (221). (see “Article Assorting and/or Orienting” above)
- 199, Type Casting, particularly subclasses 15+, 19+, 44+ for type casting machines with magazines. (see “Article Treatment Or Modification (Including Assembly)” above)
- 206, Special Receptacle or Package, appropriate subclasses for a container particularly configured to hold a specific article or material. Class 206 also provides for any container including an article (s) or material (s) put up as a mercantile unit. Although some subclasses in Class 206 (e.g., 233) have “dispensing” titles, Class 221 takes article dispensers identifiable as such according to “General Statement Of Class Subject Matter” and “Explanatory Notes On Scope Of Class” of this (221) class definition the “dispensers” for fluent material or articles in Class 206 do not come within the class limitation of Class 221. (see “Receptacles, Cabinets, Racks And Other Static Structures” above)
- 209, Classifying, Separating, and Assorting Solids, subclasses 509+ for assorting devices including article feeding or discharging. The distinction between orienting and assorting is set forth in the second paragraph of “Article Sorting And/Or Orienting” of the class definition of this class (221). Processes and apparatus for feeding or dispensing articles will be classified in Class 209 when claimed in combination with assorting means provided for in Class 209, or when generic to assorting and orienting by disclosure. (see “Article Assorting and/or Orienting” above)

- 211, Supports: Racks, appropriate subclasses for rack structures designed to support articles. For a statement of the line between the classes, see the class definition of Class 211. (see "Receptacles, Cabinets, Racks And Other Static Structures" above)
- 215, Bottles and Jars, appropriate subclasses for bottle and jar receptacle structures. (see "Receptacles, Cabinets, Racks And Other Static Structures" above)
- 217, Wooden Receptacles, appropriate subclasses for wooden receptacle structures. (see "Receptacles, Cabinets, Racks And Other Static Structures" above)
- 220, Receptacles, subclasses 578+ for an internal closure-like member that rests on the unused contents of a container; appropriate subclasses for metallic receptacle structures. (see "Receptacles, Cabinets, Racks And Other Static Structures" above)
- 222, Dispensing, appropriate subclasses, for fluent material dispensing devices and see the class definition of that class (222) and the notes thereto for the disposition of other fluent material handling disclosures. The line between Class 221 and Class 222, is as follows:

(a) Article Dispensers for Class 221 are arrangements to dispense articles one at a time, or a definite number less than the total available at the source of supply at a time. Where the dispenser handles articles in heterogeneously intermingled bulk and dispenses them in bulk without regard to their shape or relative position the dispenser is considered to be a fluent material dispenser and is classified in Class 222. Where the dispenser has features specialized to engage the discharged articles as individual units as by gripping, impaling, etc., or is otherwise structurally limited to the handling of discrete articles (e.g., orienting) the dispenser is classified as an article dispenser in Class 221.

(b) The trap chamber or segregating chamber type of dispenser, even though disclosed only for dispensing a single article, is not classified as an article dispenser in the case where the trap is a closed trap of a type from which fluent material could not escape where there is nothing special to the shape of the trap relative to the shape of a single article, and where no other feature specific to the handling of articles is included. All other

segregating chamber type dispensers are classified in Class 221, on the basis of the disclosure that a discrete article or group of articles is dispensed.

(c) The dispensing by trap chamber discharge assisting means, of elongated (cylindrical) articles which have been prearranged according to one axis thereof, is considered to be subject matter for Class 221 even though the trap chamber used to dispense such articles is a closed chamber.

(d) Dispensers capable of use with either articles or fluent material of granular, plastic, or liquid forms are classified in Class 222, that class being generic to the concept of the two classes. Dispensing devices involving material guiding means and outlet means of a type adapted to handling either articles or fluent material and not including any other feature to clearly indicate classification in either of Classes 221 and 222 are considered to present a special problem. Class 221 takes such apparatus when it is disclosed for use with discrete articles and when the disclosed arrangements are such that the articles are previously arranged at least as to one dimension. As examples, cylindrical articles with their lengths reposed in one direction, or pills in a flat pill box of a thickness smaller than the largest dimension of the pills, having claimed interior guide means and outlet means are proper subject matter for Class 221. Class 222 takes similar dispensing apparatus where there is no such disclosed or claimed arrangement of the articles.

(e) (d) Article dispensers of the types provided for in this class (221), claimed in combination with fluent material dispensers of the type provided for in Class 222 are classified in this class (221). See subclass 96 of Class 221 for such subject matter. (see "Article and Material Handling" above)

- 222, Dispensing, subclass 424.5, 454+ and 457, for fluent material dispensers provided with stationary structures defining trap chambers and subclass 564 for such dispensers having static interior material guide means or restricting means. (Receptacles, Cabinets, Racks, and Other Static Structures)

- 223, Apparel Apparatus, subclass 48 for bead stringing. (see “Article Treatment Or Modification (Including Assembly)” above)
- 224, Package and Article Carriers, subclass 196, 600+ and cross reference art collection 931 for magazine type cartridge carriers. (see “Combinations With the Subject Matter of Other Classes” above)
- 226, Advancing Material and Indeterminate Length, appropriate subclasses for methods of, and apparatus for, feeding material without utilizing the leading or trailing ends to effect movement of the material. As between Class 221 and Class 226 it should be noted that Class 226 is limited to the handling of indeterminate-lengths and that if there is a claimed source of supply of a plurality of lengths of material, the lengths of the pieces must be considered to be determinate and classification is in Class 221 if the process or apparatus is under the definition of Class 221. (see “Article and Material Handling” above)
- 227, Elongated-Member-Driving Apparatus, subclasses 107+, for magazine dispensing combined with apparatus to apply a member, e.g., nail. (see “Article Treatment Or Modification (Including Assembly)” above)
- 227, Elongated-Member-Driving Apparatus, subclasses 107+, for apparatus for arranging and feeding loose member, e.g., nails, combined with apparatus to apply a member. (see “Article Assorting and/or Orienting” above)
- 229, Envelopes, Wrappers, and Paperboard Boxes subclass 122.1 for a paperboard box intended to permit removal of articles gravity fed to the egress opening, even if the lead article must be lifted over a lip to be withdrawn. The inclusion of dispensing fractures recited in “General Statement Of Class Subject Matter” C, of this class definition would result in classification in this Class 221, Article Dispensing. (see “Receptacles, Cabinets, Racks And Other Static Structures” above)
- 232, Deposit and Collection Receptacles, appropriate subclasses, for deposit and collection receptacles. Unless a body of dispensing art exists in a special use subclass in Class 232, to indicate the existence of a home for a particular type of article dispenser, classification of deposit and collection receptacles embodying recognized dispensing features is in Class 221. (see “Receptacles, Cabinets, Racks And Other Static Structures” above)
- 235, Registers, appropriate subclasses, especially subclass 98, for registers combined with article dispensing means when the article dispensing means is not specifically defined and is claimed as associated with specific register structure. When the article dispensing means is significantly or specifically claimed classification is in subclasses 2+ and particularly in subclass 7 of this class (221). (see “Combinations With the Subject Matter of Other Classes” above)
- 242, Winding, Tensioning, or Guiding, subclass 521 and 522+ for cutting followed by convolute winding of an elongated material. (see “Article Treatment Or Modification (Including Assembly)” above)
- 246, Railway Switches and Signals, subclasses 210+ for torpedo mechanism including torpedo feeders, subclasses 212+ providing for magazine type torpedo feeders in this combination. (see “Combinations With the Subject Matter of Other Classes” above)
- 248, Supports, appropriate subclasses for supports for article dispensers where the dispensing means is not significantly or specifically claimed. Casing or support structure is considered incidental to the basic subject matter of this class (221) and significant article dispensing combined with casing or support structure as provided for in subclasses 282+ of Class 221. (see “Combinations With the Subject Matter of Other Classes” above)
- 248, Supports, appropriate subclasses, for supports, per se, and in combination with the devices supported thereby, when the latter are nominally included. Class 221 provides for the specific combination in subclasses 45+ and 282+. (see “Receptacles, Cabinets, Racks And Other Static Structures” above)
- 271, Sheet Feeding or Delivering, for apparatus for forming stacks of sheets and for apparatus for delivering sheets from a stack to a point of use. (see “Article and Material Handling” above)
- 273, Amusement Devices: Games, subclasses 108+, 119+, 129, and 317+ for devices for projecting various aerial or surface projectiles; and subclasses 139+ and 144+ for chance devices having dispensing features. (see “Combinations With the Subject Matter of Other Classes” above)
- 276, Typesetting, for type setting apparatus with magazine type feeders, particularly subclass 3, 4, 15, and 45. (see “Article Treatment Or Modification (Including Assembly)” above)

- 300, Brush, Broom, and Mop Making, subclass 4 for brush making machines including tuft feeding means. (see “Article Treatment Or Modification (Including Assembly)” above)
- 312, Supports: Cabinet Structure, for cabinet and support structures adapted to house and support article dispensing devices and not including article dispensing features characteristic of this class (221). See particularly subclasses 35+ for removal facilitating magazine type article containing cabinet structures. The line between the classes is stated in the class definition of Class 312. (see “Combinations With the Subject Matter of Other Classes” and “Receptacles, Cabinets, Racks, and Other Static Structures” above)
- 314, Electric Lamp and Discharge Devices: Consumable Electrodes, subclass 5 for electric lamps and discharge devices having electrode magazines. (see “Combinations With the Subject Matter of Other Classes” above)
- 346, Recorders, appropriate subclasses for recorder structure where no significant dispensing features are claimed even though a dispenser is named as operating the recorder. This class (221) provides for the combination of recorder and article dispenser where the article dispenser is significantly or specifically claimed, (see subclass 2). (see “Combinations With the Subject Matter of Other Classes” above)
- 369, Dynamic Information Storage or Retrieval, subclass 172 for stylus changers in sound recording and reproducing apparatus and subclasses 178.01-212 for record changers.
- 396, Photography, subclasses 360+ for magazine camera structure which feeds photographic plates to an exposure position. (see “Combinations With the Subject Matter of Other Classes” above)
- 400, Typewriting Machines, subclasses 578+ for paper feeding and see particularly subclasses 624+ for sheet magazine paper feeding to typewriting machines.
- 406, Conveyors: Fluid Current, appropriate subclasses for apparatus wherein carriers are pneumatically dispatched between stations or terminals. See particularly subclasses 108+ for 221 type dispensers which serve as intakes to fluid current conveyors.
- 409, Gear Cutting, Milling, or Planing, particularly subclass 72 and 145+ for a milling machine including means for placing or removing a blank or work feeding means, respectively. (see “Article Treatment Or Modification (Including Assembly)” above)
- 413, Sheet Metal Container Making, particularly subclass 70 for blank feeding. (see “Article Treatment Or Modification (Including Assembly)” above)
- 425, Plastic Article or Earthenware Shaping or Treating: Apparatus, subclasses 110+ for a machine for making a composite product in a molding cavity including means to feed pre-forms to the cavity. (see “Article Treatment Or Modification (Including Assembly)” above)
- 431, Combustion, appropriate subclass for a residual combustion or igniting device. The combination of such device with an article dispenser of the type provided for in Class 221, is classified in Class 221, in subclasses 136+ thereof. (see “Article Treatment Or Modification (Including Assembly)” above)
- 446, Amusement Devices: Toys, subclass 168 for marble runways, subclass 403 for a cane for detonating explosives and including a magazine for explosives, and subclass 475 for other toys having a dispenser.
- 451, Abrading, particularly subclasses 331+ for a work feeder, per se, used for abrading. (see “Article Treatment Or Modification (Including Assembly)” above)
- 453, Coin Handling, particularly subclasses 1+ and 18+ for various coin dispensers. The line between the classes is stated in the class definition of Class 453. (see “Article and Material Handling” above)
- 470, Threaded, Headed Fastener, or Washer Making: Process and Apparatus, subclasses 164+ for distributors and feeders for articles of the type provided for therein and specialized for use in machine operations on such articles. As between Class 470 and Class 221, Class 221 takes article feeding subcombinations and combinations subject to the limitations of the class definition of Class 221. (see “Article Treatment Or Modification (Including Assembly)” above)
- 473, Amusement Devices: Games, subclass 107 for a mechanical projector for a bowling ball.
- 483, Tool Changing, subclasses 58+ for a tool storage means combined with a tool transfer means which bodily moves a tool to or from the storage mean. (see “Article and Material Handling” and “Receptacles, Cabinets, Racks, and Other Static Structures” above)

SECTION V - GLOSSARY**DISCHARGE ASSISTANT**

Any means (other than the weight of the article alone) which affirmatively segregates, separates or moves an article from a supply to a point of egress. All of the supply less one article may be moved to leave a segregated or separated article in discharge position or subject to further manipulation.

DISCHARGE MEANS

Any means which either (1) affirmatively segregates, separates or moves an article from a supply to a point of egress or (2) permits separation or segregation of articles by gravitational movement thereof. A discharge means may be either a discharge assistant or a releaser.

EJECTOR

Any discharge assistant which acts directly upon an article or articles to be dispensed at any one operation to segregate or separate the same from the remainder of the supply. Followers are discharge assistants which are not included in this term since they exert force through the entire supply rather than directly on the articles to be dispensed.

HOPPER

A container, bin or receptacle for retaining a quantity of articles in a jumbled mass.

OUTLET CLOSURE

A means associated with the egress opening of a dispenser which obstructs, inhibits, or prevents passage of articles out of the dispenser in one position, such means being down stream of the point of separation or segregation of the articles.

RESILIENT

A means permitting segregation or separation of articles by unassisted gravitational movement thereof, supports or restraining means being rendered inoperative as to the articles to be dispensed and operative as to those to be retained, with return to the previous state after the dispensing operation. Such means are permissive as distinguished from discharge assistants which are affirmative force applying means (compulsive).

RELEASER

This term as used herein includes elastic means (spring form) and spring biased means as well.

SOURCE (SUPPLY SOURCE)

Any means for supporting or retaining a quantity of articles either in an orderly fashion or arrangement or as a jumbled mass such as provided by a magazine, hopper, stack, compartment, container, bin or receptacle.

STACK

A single, contiguous, continuous, orderly sequence or linear arrangement of articles which may constitute an article supply or result from operation on articles previously disposed as a jumbled mass.

SUBCLASSES

- 1 This subclass is indented under the class definition. Processes .

SEE OR SEARCH CLASS:

222, Dispensing, subclass 1 for processes for dispensing fluent materials.

- 2 This subclass is indented under the class definition. Dispensers having (1) signals, indicators, registers, recorders or gauges for indicating a condition, or the position of a dispenser part such devices consisting of relatively movable changeable, or audible information giving parts, or (2) changeable indicia bearing or display devices which are operable by the movement of dispenser parts.

- (1) Note. For classification in this subclass there must be either an indicia or audible signal of some type. Relative to visual indicia, there must be graduations or markings in the disclosure as claimed and, for display devices, some visual indication, sign or disposition of material (other than the source of supply). Where it is indicated that the mere position of a dispenser part is indicative of a condition of the dispenser, classification is in the appropriate subclass below unless some cooperating indicia are included. A mere transparent viewing means is not considered to be a signal, indicator or display device in the absence of indicia,

and such dispensers are classified in subclass 155 of this class.

SEE OR SEARCH THIS CLASS, SUBCLASS:

155, see (1) Note above.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, appropriate subclass for exhibitors where no significant dispensing features are claimed, and see the reference to that class in section V of the class definition of this class (221).

116, Signals and Indicators, appropriate subclasses for signal structure combined with article dispensing where no significant dispensing features are claimed even though a dispenser is named as operating the signal or indicator. See the class definition of this class (221) for a statement of the class lines.

222, Dispensing, subclasses 23+ for similar combinations in fluent material dispensers, and see the notes thereto.

340, Communications: Electrical, subclasses 500+ for electrical automatic condition responsive condition indicating systems.

3 This subclass is indented under subclass 2. Devices in which the condition indicating device emits a sound which is capable of being heard.

SEE OR SEARCH CLASS:

116, Signals and Indicators, appropriate subclasses, particularly subclasses 137+, 147 and 148+ for audible signals and indicators.

222, Dispensing, subclass 39, for fluent material dispensers having audible signals.

340, Communications: Electrical, subclasses 384.1+ for electrical audible signals or alarms.

4 This subclass is indented under subclass 2. Devices having means giving information as to the position or range of motion of a movable or adjustable dispenser element.

SEE OR SEARCH CLASS:

116, Signals and Indicators, subclasses 200+ for scale and pointer combinations.

137, Fluid Handling, subclasses 553+ for fluid handling systems having position or extent of motion indicators.

222, Dispensing, subclasses 41+ for similar combinations in fluent material dispensers.

5 This subclass is indented under subclass 4. Dispensers in which the position or range of motion of the dispenser element indicates a selection from one of a plurality of articles or of sources of supply of articles.

SEE OR SEARCH THIS CLASS, SUBCLASS:

92+, for devices for dispensing articles from plural sources and not including selection indicating means, particularly subclasses 119+ and 123+ which involve combinations in which means for selecting from plural sources is usually present.

SEE OR SEARCH CLASS:

137, Fluid Handling, subclass 555 for fluid handling systems having means for indicating selection from among plural branches.

222, Dispensing, subclass 42 for fluent material dispensers having means for indicating selection from plural outlets, valves, or traps.

6 This subclass is indented under subclass 2. Devices in which the condition indicated is the depletion of articles in the supply receptacle.

7 This subclass is indented under subclass 2. Devices having an information device of the type which counts and gives an indication or total of the number of occurrences of some function of the apparatus.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 23+ for fluent material dispensing devices having recorders, registers, indicators, signals or exhibitors associated therewith, and especially subclasses 24 and 27

- which relate specifically to such combinations including register means.
- 235, Registers, appropriate subclasses for register structure where no significant article dispensing features are claimed, even though an article dispenser is named as operating the register.
- 8** This subclass is indented under subclass 2. Devices having changeable indicia bearing or display devices which are operable by the movement of dispenser parts.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 4+, for article dispensers in which a changeable indicia bearing device which is a part of the dispenser indicates a condition by its position.
- 155, for dispensers having transparent inspecting or viewing means permitting observance of the dispenser operation or contents.
- 199, for display devices combined with article dispensers when the display devices do not indicate a dispenser condition or are not activated by dispenser operation.
- 9** This subclass is indented under the class definition. Article dispensers having means to sense a condition (or absence thereof) or a change of condition, which condition may or may not change, said means causing operation or control of a separate device for effecting a control function on the dispenser.
- (1) Note. Machines which operate on a repeating cycle of operation are not considered to be "automatic" even though they are often so designated in the art, unless there are included means sensitive to conditions subject to change, from cycle to cycle, and separate means controlled thereby to effect a control function on the machine. Thus, a machine including means to sense condition changes which necessarily take place to the same degree at the same time in each cycle of operation are not included in this subclass.
- (2) Note. Where the means responsive to condition change directly effect a control function, i.e., where the sensing and the control means are the same instrumentality, the device has been considered to be condition responsive rather than automatic in the sense intended in this and the indented subclasses. See subclasses 17+, 21, 22+, 107+, and 151+, for example.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 17+, see (2) Note above.
- 21, see (2) Note above.
- 22+, see (2) Note above.
- 107+, see (2) Note above.
- 151+, see (2) Note above.
- SEE OR SEARCH CLASS:
- 222, Dispensing, subclasses 52+ for fluent material dispensing devices having automatic control means, and see the notes thereto.
- 235, Registers, subclass 379, 380, 381, and 383 for banking and credit card systems and mechanized stores, respectively, wherein either money or merchandise is released upon the sensing of a valid credit card and including means to debit the account of the individual receiving the money or merchandise.
- 10** This subclass is indented under subclass 9. Devices in which the device which is operated or controlled is a means for feeding of replacement articles to the supply container of the dispensing device.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 66, for nonautomatic article dispensers in which a replacement article must be inserted as an incident to the removal of the leading article.
- 68, for nonautomatic devices having hopper feed means to supply plural dispensing stacks.
- 174, for nonautomatic devices having means to feed a supply or articles to a dispensing hopper.

- 11** This subclass is indented under subclass 10. Devices in which the condition sensed is the depletion of articles in a supply portion which is a single, continuous orderly sequence or linear arrangement of such articles and the feeding is one which operates to cause another similarly arranged new supply portion of articles to become available to be dispensed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

103+, for similar devices not including the automatic feature.

- 12** This subclass is indented under subclass 9. Devices in which the device which is operated is a gate member which is removable or interposable in the path of the articles as they are dispensed.

- 13** This subclass is indented under subclass 9. Devices in which the device which is operated or controlled is a means to affirmatively segregate, separate or move the articles from a supply source toward a point of egress.

- 14** This subclass is indented under subclass 13. Devices in which the condition sensed is the lack of articles in the supply source receptacle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

6, for similar devices including empty supply source indicating means.

110, for plural source article dispensing devices in which the discharge assistant to a succeeding available stack is directly actuated by means responsive to the depletion of supply of a previous stack.

- 15** This subclass is indented under the class definition. Article dispensers having means which substantially limits or retards the period of operation of a discharging means or the period between successive operations of a discharging means to a predetermined time interval.

(1) Note. Devices in which the time for complete cycles of operation is predetermined solely by the speed at which the actuator for the discharging means is operated are excluded and are classified

in appropriate subclasses below. However, the specific provision of structure having the disclosed function of causing a pause or retardation of motion during a portion of each cycle is included. The provision for lost motion in an actuating linkage is not considered to be delay mechanism within the meaning of this subclass definition, it being required for classification here that some structure other than the actuating linkage or mechanism itself be provided to cause and/or control a time delay in the operation of the device.

SEE OR SEARCH THIS CLASS, SUBCLASS:

243, for lost motion arrangements in the actuating means for the discharge assistants of article dispensing devices and see the search notes thereto.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 638+ for fluent material dispensers having timing or delay mechanism and see the notes thereto for further related search fields; and see also subclass 477 for fluent material dispensers having means for retarding the normal rate of operation of discharge controllers or closures.

- 16** This subclass is indented under subclass 15. Devices in which the means which affects discharge of the articles is braked or retarded by a fluid damping or checking device.

- 17** This subclass is indented under the class definition. Article dispensers having means which senses depletion of the entire source of supply and in which the same means directly effects control of the actuation of an article segregating means or of a supply receptacle locking or unlocking function.

(1) Note. Those devices having a plurality of stacks or sources of supply and having means to feed from a subsequent stack or source upon depletion of the initial source are not considered to have means responsive to depletion of the entire supply and are not classified in this or indented subclasses unless means

responsive to depletion of the final stack or source are also included. Such subject matter is classified in subclasses 103+, and especially in subclass 108.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 6, for similar devices including empty supply source indicating means.
- 11, and 14, for article dispensers having means responsive to the depletion of a stack or the entire supply, respectively, having separate means controlled thereby to effect a control or a cut-off of the dispenser.
- 103+, and especially 108+. See (1) Note above.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 64+, for fluent material dispensers having material level control means and particularly subclasses 65 and 66 for full and/or empty interlocks and empty container cut-offs, respectively.

- 18** This subclass is indented under subclass 17. Devices in which the sensing means directly acts to prevent or preclude movement of discharging means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 125, for plural source dispensing devices having separate discharge means for each source and lockout means to inhibit motion or operation of the discharge means of nonselected sources.
- 151+, for article dispensers having means for blocking or disabling the ejector or releaser means thereof but not involving an empty supply source responsive means.

- 19** This subclass is indented under subclass 18. Devices in which the motion inhibiting sensing means is a catch type fastening or holding means which acts to inhibit motion of the discharge means in response to the empty supply source condition.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 152, for article dispensers having means for blocking or disabling the ejector or releaser thereof by engagement with a slot, notch or protuberance on such ejector or releaser.

- 20** This subclass is indented under subclass 19. Devices in which an element of the catch type fastening or holding means is on a discharge assistant of the type which applies a force which is exerted through all of the articles tending to move the entire supply in the direction of the egress opening.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 57, for dispensers for flexible articles having a follower, and a replenishment interlock in the form of a means to fasten or hold the follower in retracted position while refilling the source of supply.
- 227, for article dispensers having follower disabling, retracting or releasing means, neither of the aforementioned subclasses including devices involving empty supply source responsive means.

- 21** This subclass is indented under the class definition. Article dispensers having means which senses failure of a dispenser to perform a desired function properly and directly effects stopping of the operation of the dispenser or effects a correction of the improperly performed function by the operation of auxiliary means or by changing the mode of operation of the dispenser.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 17+, for similar devices in which the failure of the dispenser to perform is due to the complete depletion of the source of supply.
- 243, for lost motion devices in actuators for discharge assistant type dispensers and for yieldable confining means for the contents to provide for relief or escape of articles which have been segregated from a supply and see the

search notes thereto for relief of jamming and over-supply conditions in handling devices generally.

- 22** This subclass is indented under the class definition. Article dispensers having article segregating means so associated with a supply source receptacle that the removal of a previously segregated article from the device is effective to activate the segregating means to act directly on the next available article in the supply receptacle to segregate it from the supply.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 38, and 47+, for dispensers in which interleaved flexible articles are concurrently separated and distorted and in which by virtue of the interleaving, the leading fold of a subsequent article is pulled from the supply receptacle by movement of the first article.
- 66, for devices in which article delivery is dependent upon the insertion of a replacement article. These patents are distinguished from the patents in this subclasses 22+ in that the former do not have segregating means (other than, or in addition to the articles themselves) which act on the second article as the first article is removed.

- 23** This subclass is indented under subclass 22. Devices in which the segregating means is one which applies an affirmative segregating force to the article and is activated by an affirmative force applied thereto by the previously segregated article in the course of removal of said article from the device.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 13, for similar devices in which the removal of the leading article is sensed by means which in turn actuate separate control means for a discharge assistant.

- 24** This subclass is indented under the class definition. Article dispensers having claimed features of external configuration which imitate or assume the appearance of some object.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 78+ for fluent material dispensers with special object simulating configurations.
- 446, Amusement Devices: Toys, subclasses 268+ for a figure toy which may include a dispenser (e.g., egg-laying chicken), and subclass 475 for other article dispensing toys.

- 25** This subclass is indented under the class definition. Article dispensers in which the source of supply of articles is a continuous carrying or conveying means which is in the form of a structure by which material is removably retained in or on such structure by individual compartment or holding means, such compartment or holding means being (a) a separate means affixed to the carrying or conveying means or (b) being formed in or by elements of the carrying or conveying means, and in which the carrying or means, in either case, is progressively demolished as by detachment of sections thereof, so that the detached sections of the compartment or carrying means with the contained material and/or separate means is dispensed as a discrete article.

- (1) Note. Demolishment, in the sense in which it is used in this definition means complete destruction so that the cell structure cannot be reused. Examples of types elsewhere classified in this class in which the cell structure has relatively movable compartments which are removable to collapse the structure to release the articles are to be found in subclasses 70+ and 84+, and especially in subclasses 86 and 89+.
- (2) Note. The demolition must be by virtue of the action of or by cooperation with structure provided for the performance of such a function. Receptacle structure adapted to be destroyed solely by the application of manual force is classified in the appropriate receptacle art.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 70+, see (1) Note above.
- 84+, see (1) Note above.

- 86, see (1) Note above.
 89+, see (1) Note above.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 80+ for fluent material dispensing devices having means to cut or punch the supply container.
 225, Severing by Tearing or Breaking, appropriate subclasses, for devices having fixed blades for dispensing web or strand material from a supply source by manually tearing portions of the material thereagainst.
 493, Manufacturing Container or Tube From Paper; or Other Manufacturing From a Sheet or Web, subclasses 340+ for device for feeding and cutting web or sheet material.

- 26** This subclass is indented under the class definition. Article dispensers having means associated with the supply receptacle which either (1) pass through the articles so that the articles must be severed or deformed to be removed or (2) clamp a portion of the articles so that the portion to be removed must be torn from the retained portion.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 27+, for captive article type article dispensing devices which are similar in construction but in which the article is not permanently removed from the source of supply but remains associated therewith.

SEE OR SEARCH CLASS:

- 211, Supports: Racks, subclass 54.1 and 57.1 for racks having impaling means upon which articles are supported.
 225, Severing by Tearing or Breaking, subclass 106 for web or strand dispensers with means to restrain the web so as to create a stress when the work is pulled to effect a severance of the work at a weakened zone.

- 27** This subclass is indented under the class definition. Article dispensers in which the articles are retained in position on an element of the supply container or on a support associated therewith so that they cannot be separated

therefor, the articles being removed from the supply source or receptacle, used and left in an attached state, in the normal use of the device.

- (1) Note. It is considered that removability of an entire supply source or stack with or from the element to which the articles are attached for replacing stacks of used articles is a normal incident to the subject matter of this subclass and does not preclude classification herein.
 (2) Note. This subclass is not intended to take devices which hold captive only a part of an article, allowing a portion to be removed (as the contents of a captive receptacle). The entire article must be made available for use and remain attached to the supply source. Devices for feeding captive bottles, opening and dumping them are classified in Class 312, in subclasses 35 and 36.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 26, for structures which are similar but in which the article is torn or deformed and actually disconnected permanently from the source of supply when it is separated therefrom.

SEE OR SEARCH CLASS:

- 211, Supports: Racks, subclass 6 and 16 for racks designed to hold a supply of towels locked thereon. This class (Class 221) takes such structures combined with dispensing means.
 312, Supports: Cabinet Structure, subclasses 34.1+ for similar combinations not including a dispensing feature but including cabinet structure. See also subclasses 35 and 36 in connection with (2) Note above.

- 28** This subclass is indented under subclass 27. Devices having affirmative means to withdraw or move the captive articles from the station or location at which they are used after having been dispensed.

- 29** This subclass is indented under subclass 27. Devices in which the articles are locked on a supporting guide in such a manner that the

entire article may be moved relative to the guide in a direction along the guide.

See the search notes to subclass 80 for related fields of search.

30 This subclass is indented under the class definition. Article dispensers having means in addition to the supply container or its wrapping to pierce, slit, rupture or otherwise penetrate or sever the material of which said supply container or its wrapping is constructed by passing from one side of said material to the other.

- (1) Note. For classification in this group to be proper there must be a dispensing feature present. Cutters and/or punches, per se, are classified in appropriate other arts, as Class 30, Cutlery and Class 81, Tools, for example.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 25, for cutters cooperating with cellular magazine type supply sources which are used to sever and thereby destroy the said magazine.
- 26, for article dispensers in which an article supporting element passes through the article so that the article must be torn to be moved.
- 135+, for dispensers combined with means for cutting or punching articles as an article treatment or modification, when no other existing classification provides for such subject matter.
- 213+, for discharge assistants including means to impale articles to hold them while assisting the discharge thereof from a source of supply.

SEE OR SEARCH CLASS:

- 30, Cutlery, see (1) Note above.
- 81, Tools, see (1) Note above.
- 222, Dispensing, subclasses 80+ for fluent material dispensers including cutter or punch means.

31 This subclass is indented under subclass 30. Devices in which the cutting or punching means acts on the supply container or its wrapping to form an article egress opening.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 80+ for similar devices for fluent material dispensers, and particularly subclasses 81+.

32 This subclass is indented under subclass 31. Devices in which the cutting means is in the form of a piece of flexible strip material in addition to the supply container or its wrapping but so related thereto that movement of the strip rips or tears the supply container or its wrapping.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 302, for article dispensers having frangible elements for the outlets and not including the breaking or cutting means, the distinction being that in patents classified in that subclass, frangibility may be due to weakening of the material of the supply container or its wrapping rather than to the presence of another attached element.

SEE OR SEARCH CLASS:

- 229, Envelopes, Wrappers, and Paperboard Boxes, subclasses 200+ for severing means for opening a paperboard box.

33 This subclass is indented under the class definition. Article dispensers for dispensing articles, which by nature are capable of changing shape and having means effective to cause a change in the shape of such articles simultaneously with the segregation thereof from a supply source.

- (1) Note. Many devices which are disclosed for dispensing articles which by nature are deformable are in fact of such structure as to be equally well adapted to dispense rigid articles. Patents are not placed in this and the indented subclasses unless the mode of operation of the claimed structure is such that the deformation of the dispensed article must occur as an incident to separation from the supply.
- (2) Note. Articles which are distorted from their normal shape for storage in a dispensing magazine and assume their normal shape upon being separated from the magazine due to their inherent resilience are here.

SEE OR SEARCH CLASS:

- 53, Package Making, subclasses 384.1+ and 571+ for devices for dispensing and opening flexible bags.
- 132, Toilet, subclasses 330+ for “bob-bypin” and “hairpin” dispensers combined with means for separating or spreading the pin as by wedging action concurrently with the dispensing thereof.
- 271, Sheet Feeding or Delivering, appropriate subclasses for sheet feeding or delivering devices having similar structures and modes of operation, for feeding sheets from a stack to a point of use.
- 312, Supports: Cabinet Structure, subclasses 50+ for cabinet structures having article removal facilitating means especially adapted for stacked cards or sheets.

34 This subclass is indented under subclass 33. Devices having, for concurrently separating and distorting flexible articles.

- (1) one or more additional article dispensing devices of either similar or dissimilar nature
- (2) one or more additional receptacles or compartments for receiving material or articles, or
- (3) a jacket surrounding the article dispenser and spaced therefrom, at least in part, to provide a material or article receiving space.
- (1) Note. This subclass is parallel to subclasses 92+ and the explanatory and search notes to that subclass apply to searches made herein insofar as they are applicable to particular search problems relating to details of plural compartment devices involving the concurrent separation and distortion of flexible articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 92+, see (1) Note above.

35

This subclass is indented under subclass 34. Devices in which there are an even number of dispensers for concurrently separating and distorting articles and in which the article egress outlets are disposed as pairs which open diametrically away from one another.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 117, for plural source alternately operated general type dispensers having oppositely faced outlets.

36

This subclass is indented under subclass 33. Devices having discharge assisting means which directly engages and applies a force to the article being separated to distort said article and force it from the source of supply towards or through an egress outlet.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 208+, appropriate indented subclasses for general type article dispensers having discharge assisting means of a similar nature.

37

This subclass is indented under subclass 36. Devices in which the supply source container is a receptacle having at least one movable wall portion and this portion is so connected to the discharge assisting means that, in the normal operation of the device, movement of the wall portion results in operation of the discharge assistant to discharge an article.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 229, for general type article dispensers including followers, in which movement of a supply container closure section causes operation of an ejector.
- 246, for general type dispensers in which articles are segregated by sliding movement of the cover relative to the supply container.
- 249, for general type article dispensers in which movement of an outlet closure results in movement of an ejecting member.
- 269, for general type article dispensers having reciprocating discharge assis-

tants and integral outlet closure means connected thereto.

- 38** This subclass is indented under subclass 36. Devices for dispensing flexible articles which are each bent upon themselves at least once, and in which such articles are stacked in such a manner as to have the resulting bent portions interfolded with one another, the discharge assisting means acting on the leading fold of the leading article.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 240, for general type article dispensers in which discharge assistants act on folds or noncoextensive parts of the articles to be dispensed.

- 39** This subclass is indented under subclass 36. Devices having means, either apart from, or incorporated in the discharge assisting means for moving the article in a direction away from the egress opening before urging it toward the egress opening.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 40, for similar dispensers for flexible articles in which the ejector has compound motion.

- 40** This subclass is indented under subclass 36. Devices in which the discharge assistant partakes of more than one character of motion, either simultaneously or successively, in the normal operation thereof, to discharge articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 39, for similar dispensers for flexible articles having means imparting a preliminary motion in a direction away from the outlet.
262, for general type article dispensers in which the discharge assistants have compound motion, and see the notes thereto.

- 41** This subclass is indented under subclass 36. Devices having deflecting means for altering the direction of travel of the leading edges of articles as they are forced to the egress outlet by the discharge assistant.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 55, for similar dispensers for flexible article having stationary guide or abutment means acting on noncoextensive folds but not including ejecting means in the combination.
312, for general type article dispensers having interior article guiding means and see the search notes thereto.

- 42** This subclass is indented under subclass 36. Devices in which the discharge assistant has movement about a fixed axis in one direction only.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 277, for general type dispensers having rotary discharge assistants, and see the search notes to that subclass.

- 43** This subclass is indented under subclass 42. Devices in which the discharge assistant is an element of circular cross-section which has peripheral surface contact with the articles to assist their movement to an egress outlet.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 259, for general type dispensers which use surface contact discharge assisting means.

- 44** This subclass is indented under subclass 33. Devices in which the dispenser or some portion thereof is so constructed that the dispenser is capable of selective use with articles of different proportions.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 241+, for general type article dispensers having size adjusting means, and see the search notes thereto.

- 45** This subclass is indented under subclass 33. Devices having either (1) an outer covering enclosing the dispenser or the supply receptacle in whole or in part or (2) particular means for maintaining a dispenser unit or entity against the force of gravity, such means being more than the mere means of sustaining one

part of the device relative to another or mere nominal base or pedestal means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

282+, for general type article dispensers having casings or supports and see the notes to subclass 282 for a discussion of the nature of the subject matter involved and for other related search fields.

- 46** This subclass is indented under subclass 45. Devices in which the supply receptacle is so related to a surrounding enclosure or to the specific supporting structure that it is at least partially displaceable therefrom for refilling or replacement.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49, for refill packages and see the notes thereto regarding the distinction between a removable supply magazine and refill package.

197+, for general type article dispensers having supply cartridges or containers removably mountable within enclosing casing or housing structure.

287, for general type article dispensers having supply enclosing containers removably associated with dispensing means.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 325+ for fluent material dispensing devices having insertable cartridges or removal containers as elements thereof.

- 47** This subclass is indented under subclass 33. Devices for dispensing flexible articles which are bent upon themselves at least once, and in which one of the resulting bent portions is urged to a position at least partially removed, and from which it may be more readily removed, the portion so urged being either of a length different from a connected portion or portions of the article or being deformed, as by flexing, from the connected portion or portions of the article.

- 48** This subclass is indented under subclass 47. Devices in which the articles are stacked in such a manner as to be interfolded with one another and in which an unequal fold or deformed portion of each successive article is urged or pulled to the position of more ready removal by virtue of the coordination of the portion of the preceding article which is interfolded therewith.

SEE OR SEARCH THIS CLASS, SUBCLASS:

38, for similar devices including means to eject the leading article from the supply source receptacle.

- 49** This subclass is indented under subclass 48. Devices in which the supply of articles is in the form of a prearranged stack of interfolded articles contained in an outer wrapping and designed to be placed within a supply container to be dispensed.

(1) Note. This subclass also takes refill packages, per se, as used in combinations identified by the subclass definition.

(2) Note. The package, per se, is never adapted to be used as a dispenser except in conjunction with a supply receptacle which has the necessary dispensing feature. Where the package is a complete dispenser, i.e., has a covering embodying a dispensing outlet, or has a discharge assistant, etc. and an outer casing or support for such a package is claimed classification is in subclass 46 of this class. Where the package outer wrapper has dispensing features so that the package may be used as a dispenser without the use of other structure, classification is based on the nature of the dispensing combination so formed.

(3) Note. Where the outer holder, casing, or wrapper of a "prearranged" stack is a removable part of a dispenser organization which must be taken out, refilled and replaced, the filled part is not considered to be a refill package, but is merely a removable supply magazine. See subclass 46.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

46, see (2) Note and (3) Note above.
197+, for general type article dispensers having removable supply cartridges or containers.

SEE OR SEARCH CLASS:

206, Special Receptacle or Package, subclasses 449+ for a container for plates or sheets and subclasses 499 through 520 for nesting or stacking features.

50 This subclass is indented under subclass 48. Devices in which the stack of articles has associated therewith an independent element which cooperates with the first available article to withdraw a fold thereof from the supply receptacle.

51 This subclass is indented under subclass 48. Devices in which the interfolded stack is either formed of articles which are normally of a curved configuration relative to the longitudinal axis of the stack or of normally flat articles which have been flexed to a similar curved configuration and in which the articles are removed from the side of the stack which comprises the inner face of the curve.

52 This subclass is indented under subclass 48. Devices having means to apply a force which is exerted through all of the articles tending to move the entire supply relative to article enclosing supply container structure in a direction towards an egress opening.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

56+, for similar devices in which the flexible articles are not interleaved with one another, and see the search notes thereto.

279+, for general type article dispensers having followers, and see the search notes thereto.

53 This subclass is indented under subclass 48. Devices having means in addition to a mere article supporting surface to push back or hold back subsequent articles as the first article is removed so that the normal constraining force

of the stack of articles on the article being removed is reduced.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

251, for general type article dispensing devices having discharge assistant means and also separate means for holding back subsequent articles.

54 This subclass is indented under subclass 53. Devices in which the pushing or holding means has motion relative to the portion of the device on which it is mounted.

55 This subclass is indented under subclass 47. Devices in which the means urging noncoextensive folds of the articles to a removal position are a static directing or restraining means in the normal path of removal of the articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

41, for dispensers for flexible articles in which ejecting means cooperate with stationary guide or abutment means to distort and/or direct such articles upon discharge.

312, for general type article dispensers having interior article guiding means, and see the search notes thereto.

56 This subclass is indented under subclass 33. Devices having means to apply a force which is exerted through all of the articles tending to move the entire supply relative to article enclosing supply container structure in a direction towards an egress opening.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

52, for similar devices in which the flexible articles are interleaved with one another.

279+, for general type article dispensers having followers and see the search notes thereto.

57 This subclass is indented under subclass 56. Devices having means associated with the follower and the supply receptacle to cause the follower to be held in a retracted position for facilitating the replacement of the supply of articles when depleted.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

227, for general type article dispensers having plural discharge assistants, one of which is a follower having disabling, retracting, or releasing means.

58 This subclass is indented under subclass 56. Devices which are inherently resilient.

59 This subclass is indented under subclass 56. Devices in which the follower is resiliently urged in a direction to force the articles towards the egress opening.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

271, and 276, for general type article dispensers having spring biasing means for reciprocating discharge assistant.

60 This subclass is indented under subclass 59. Devices in which the resiliently biased follower is mounted for angular motion relative to means which support it in or on the supply receptacle.

61 This subclass is indented under subclass 33. Devices in which the supply container has, in addition to an egress outlet, some other opening, the latter opening being for replacing the supply when depleted, or for affording admittance for some other purpose.

(1) Note. The "other" opening may be merely a larger openable panel which contains the egress opening.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

57, for similar structures which include also a follower and in which there is an interlock between the follower and the operation of the replenishment means.

228+, for article dispensers in general, having a source container cover (for an opening other than the outlet opening) with related discharge assisting means.

281, for general type article dispensers having separate inlet means for

replenishment of the source of supply or for other access to a dispenser.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 478+ for fluent material dispensers having plural outlets. In this collection of art one of the outlets may be for replenishment or access for other purposes.

62 This subclass is indented under subclass 61. Devices in which the replenishment opening is formed by movement or removal of a receptacle wall or closure portion which has angular motion relative to the means which connects it to the receptacle.

63 This subclass is indented under subclass 33. Devices in which the supply containers have egress outlets which are of lesser cross-section than that of the articles as presented thereto so that the articles are distorted thereby as they are segregated from the supply.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

303+, for article dispensers having outlets which are distorted as the articles are withdrawn therethrough, this organization representing a reversal of the mode of operation of this subclass 63.

64 This subclass is indented under the class definition. Article dispensers in which the article supply receptacles have one or more walls or portions thereof which may be distorted or deflected by application of a force, such distortion or deflection being effective to release or expel articles from such receptacles.

(1) Note. The flexibility must be in at least some wall portion other than or in addition to flexibility of an article dispensing outlet. Resilient type article dispensing outlets are classified in subclasses 307+.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

307+, see (1) Note above.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 92+ for fluent material dispensers having collapsible wall type supply containers, and sub-

classes 206+ for fluent material dispensers having resilient walls.

- 65** This subclass is indented under the class definition. Article dispensers in which the supply receptacle decreases in size or contracts as articles are dispensed therefrom, by sliding of the container walls within one another or by otherwise reducing the container wall structure area.

(1) Note. Supply containers having followers are not included herein. See subclasses 279+.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 64, for article dispensers in which the supply container size may be decreased by the flexibility of supply container wall structure.
242, for article dispensers having discharge assistant means and in which the supply sources are adjustable in size to accommodate different size articles.
279+, see (1) Note above.

- 66** This subclass is indented under the class definition. Apparatus in which addition of an article to the supply or movement of an article through a supply inlet is a necessary concurrent incident to the ejection, release, or removal of an article therefrom or to the movement of the leading article in a direction axially towards the outlet.

(1) Note. Where a replacement article is pushed into or through a source of supply inlet and acts through all the articles to eject the leading article or to move it axially towards an outlet, it is considered to be a discharge assistant and included herein as a special case, even though no dispensing type outlet is claimed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 281, for article dispensers having separate openings for replenishment or access, and see the search notes thereto.

- 67** This subclass is indented under the class definition. Article dispensers in which a plurality of superposed articles are disposed in a single continuous orderly sequence and in which

alternate articles are interdigitated with contiguous articles and are misaligned therewith in such fashion that they are partially but not completely coextensive therewith so that each of said articles helps to support the adjacent superposed article.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 118, for articles disposed in vertically staggered or stepped relation in separate or spaced columns.

- 68** This subclass is indented under the class definition. Article dispensers in which articles from a single supply of such articles are formed into a plurality of continuous, orderly, linear sequential arrangements, each such arrangement having means associated therewith for separating, segregating or discharging articles therefrom.

(1) Note. For purposes of classification in this subclass, the dispensing means associated with each orderly arrangement or stack of articles may be disclosed but not necessarily claimed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 175+, for means for forming stacks (single) from articles otherwise arranged in supply containers.

- 69** This subclass is indented under the class definition. Article dispensers in which the source of supply is in the form of a structure in which each article is individually retained in or by a separate compartment or holding means.

(1) Note. See "General Statement of the Class Subject Matter" C, subsection 5 of the class definition for a discussion of cellular magazine type devices and the features combined therewith which constitute dispensers under the class definition of this class and for class lines with the various receptacle and cabinet arts.

- 70** This subclass is indented under subclass 69. Devices in which the holding means or compartments are contained on or in or are formed by a coiled or bent flexible strip which is of substantial length but is not continuous.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 25, for article dispensing devices in which cellular magazine type supply sources are progressively destroyed to effect a dispensing operation.
 77+, and 84+, for cellular magazine type dispensers having continuous flexible belt conveyors for carrying the articles past a discharge point.
 253, for article dispensers of general types having endless belt type discharge assistants.
- SEE OR SEARCH CLASS:
 312, Supports: Cabinet Structure, subclass 91 for cabinet structures having article removal facilitating means including a web conveyor.
- 71** This subclass is indented under subclass 70. Devices having means to move the flexible strip toward or through a point of discharge.
- SEE OR SEARCH CLASS:
 226, Advancing Material or Indeterminate Length, appropriate subclasses for methods of, and apparatus for, feeding material without utilizing the leading or trailing ends to effect movement of the material.
- 72** This subclass is indented under subclass 71. Devices in which the movement of the flexible strip is such, relative to other structure, as to cause or allow the articles to be separated or released from the holding means or compartments in which they are carried.
- 73** This subclass is indented under subclass 72. Devices in which the articles are held to the flexible strip by adhesive means which cause abutting portions of the strip and the articles to cohere and having means to engage the article, the strip, or the line of adhesion, to separate the articles from the strip.
- SEE OR SEARCH CLASS:
 156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclass 584 for delaminating, per se.
- 74** This subclass is indented under subclass 71. Devices having means to directly engage the articles in the cells to move them in a direction of discharge from the cells.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 79+, for similar combinations in which the articles are carried on conveyor type magazines other than the multiple strand type, and see the notes thereto.
- 75** This subclass is indented under subclass 69. Devices in which the cellular structure is such that the articles are moved from one compartment or holding means to another in the normal operation of the device.
- (1) Note. A spiral surface, which is so arranged, per se, or in combination with other structure, that separately retained articles move progressively along the surface thereof to a point of discharge is included in this subclass.
- 76** This subclass is indented under subclass 69. Devices in which the cellular source of supply is mounted for movement relative to a support so that the articles may be carried from point to point as the cellular structure is moved.
- 77** This subclass is indented under subclass 76. Devices having a plurality of belts, cables, ropes, or the like, arranged side by side to form a movable cellular supply source, either by themselves, or in combination with other structure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
 70+, for noncontinuous web type cellular magazines.
 84+, for other belt type cellular magazine conveyor structures.
- SEE OR SEARCH CLASS:
 198, Conveyors: Power-Driven, subclass 817 for multiple strand conveyors, per se.

- 78** This subclass is indented under subclass 77. Devices having also force applying means acting directly upon the articles in the cells to move such articles from the cells.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

79+, for similar combinations in which the articles are carried on conveyor type magazines of other types, and see the notes thereto.

- 79** This subclass is indented under subclass 76. Devices having means to apply an affirmative force to the articles to segregate, separate, or move such articles from the various cells.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

74, for rolled or folded web type magazines having ejecting means.

78, for cellular magazine type dispensers mounted upon multiple strand conveyors and having ejecting means.

87+, for nonconveyor type cellular magazine type dispensers having ejecting means.

- 80** This subclass is indented under subclass 79. Devices in which the force applying means is substantially rigidly mounted on the support to be contacted by the articles in the cells as the cell structure advances.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

186+, for supply containers movably mounted for dispensing, such supply containers being of the noncellular magazine type and often involving movement relative to a stationary article releasing or discharge assisting structure.

- 81** This subclass is indented under subclass 79. Devices having means to cause movement of the cellular source of supply, said means being operatively connected to the ejecting means for relative manipulation therewith.

- 82** This subclass is indented under subclass 76. Devices in which the articles are carried to a point at which, by virtue of their own weight,

they fall from their respective compartments, or holding means.

- 83** This subclass is indented under subclass 82. Devices having movable gate means to normally prevent the gravity discharge of articles from the cells and having means to cause movement of the cellular source of supply, the movable gate means being operatively connected either (1) to said means to cause movement of the cellular source of supply; or (2) to a means for locking the cellular source of supply against movement.

- 84** This subclass is indented under subclass 82. Devices in which the cellular source of supply is incorporated in or supported upon a nonrigid continuous or endless member.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

70+, for noncontinuous web type cellular magazines.

77+, for similar combinations in which the conveyor is of the multiple strand type.

- 85** This subclass is indented under subclass 84. Devices in which the nonrigid continuous or endless member is so disposed that the article carrying compartments or cells carried thereby have motion in a horizontal direction for at least a part of their path of movement.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

253, for article dispensers having endless belt carried discharge assistant means.

- 86** This subclass is indented under subclass 82. Devices in which the articles are released for gravity discharge by motion relative to one another of either the compartments or holding means, or of the structural parts comprising such compartments or holding means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

84+, for flexible conveyor belt carried cell structures, motion of which belt results in relative movement of the cells.

89+, for cellular magazine type article dispensers in which the cellular maga-

zine is not of the conveyor type but in which articles are discharged by relative movement of cell structure components.

- 87** This subclass is indented under subclass 69. Devices having means affirmatively applying a force to the articles in the cells to cause discharge of such articles from the cells.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

79+, for conveyor mounted cellular magazine type article dispensers having means to remove articles from the cells, and see the notes thereto.

- 88** This subclass is indented under subclass 87. Devices in which the means affirmatively applying a force is a single instrumentality which is adapted at different times, to apply discharging forces on the articles in each of the cells.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

74, 78 and 79+, for special types of cellular magazine type article dispensing devices having ejectors, in many of which a single ejector acts on all of the various cells.

- 89** This subclass is indented under subclass 69. Devices in which the separate compartments or holding means each includes a portion or component which has motion relative to another portion which supports an article, the separation of the article being effected by relative movement between such portions.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

86, for movable conveyor type cellular magazines having cells with movable components.

- 90** This subclass is indented under subclass 89. Devices in which the movable portion or component is a shelf or door which has angular motion about its support.

- 91** This subclass is indented under subclass 89. Devices in which the separate compartments or holding means each has an opening, the mov-

able supporting portion or component comprising a single gate member which closes all the openings and has sliding motion relative to the remainder of the cell structure to progressively release articles therefrom.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

86, for similar structures in which the cellular magazine is of a conveyor type.

92

This subclass is indented under the class definition. Article dispensers having (1) Two or more separate supply compartments, sources or stacks, at least one of which delivers to an article dispensing means (2) Two or more containers claimed in combination, at least one being an article dispensing container and the other or others being material or article receiving means, or (3) an article dispensing container which has a jacket surrounding the same and spaced therefrom, at least in part, to provide a material or article receiving space.

(1) Note. Where the dispenser is divided or sectioned to provide a spaced jacket for the reception or holding of the dispenser actuating mechanism or the like such compartment has been considered as a casing or support feature. Such structures not otherwise including a second source, stack or compartment are classified in subclasses 282+ of this class.

(2) Note. The plural sources, stacks or compartments of this and indented subclasses are not disposed in series arrangement for feeding from one source, stack or compartment to another. For such series arrangement see subclasses 68, 174 or 175+.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

34+, for similar combinations in which at least one compartment embodies a dispenser of the type which concurrently separates and distorts flexible articles.

68, see (2) Note, above.

174, see (2) Note, above.

175+, see (2) Note, above.

282+, see (1) Note, above.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 129+ for fluent material dispensers having plural sources, compartments, and containers.

- 93** This subclass is indented under subclass 92. Devices arranged so that at each operation of the dispensing means, dispensing takes place from at least two sources.

SEE OR SEARCH THIS CLASS, SUBCLASS:

206+, for dispensers having quantity preselection means operating relative to a single source.

- 94** This subclass is indented under subclass 93. Devices in which the number of sources may be selectively chosen.

SEE OR SEARCH THIS CLASS, SUBCLASS:

125, for plural source article dispensing devices having lockout means to permit dispensing from one, only, of the sources. This subclass 94 has similar devices in which dispensing takes place from a plurality of sources less than all of the sources available.

126+, for plural source article dispensing devices having common selector means to permit or cause dispensing from one, only, of the plural sources.

- 95** This subclass is indented under subclass 93. Devices in which one, only of an article releasing or force applying segregating means moves to receive articles in turn from plural sources.

- 96** This subclass is indented under subclass 92. Devices having a dispenser for fluent material as well as a separate article dispensing means.

SEE OR SEARCH CLASS:

99, Foods and Beverages: Apparatus, subclass 450.4 for a similar combination in a machine for making a composite edible (e.g., sandwich, etc.), from preforms.

141, Fluent Material Handling, With Receiver or Receiver Coating Means, subclass 174 for combinations including means for dispensing a drinking cup and means for dispensing a beverage thereto.

222, Dispensing, appropriate subclasses, for fluent material dispensers, per se, and especially subclasses 129+ for plural source fluent material dispensing devices. See section VI of the class definition of this class (221), for a statement of the line between Classes 221 and 222 relative to such subject matter.

- 97** This subclass is indented under subclass 92. Devices in which two or more containers are claimed in combination, at least one being an article dispensing container and at least one being a material or article receiving means which has no dispensing means associated therewith.

(1) Note. For classification in this subclass the type source must have neither article dispensing means of the type required for classification in this class nor fluent material dispensing means of the type recognized by Class 222.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 130+ for similar combinations for fluent material dispensing devices. See (1) Note above.

- 98** This subclass is indented under subclass 97. Devices in which the material or article containing or receiving means partakes of motion relative to or may be withdrawn from the article receptacle from which articles are dispensed.

- 99** This subclass is indented under subclass 98. Devices in which the nondispensing compartment is an open topped box or container which slips or is guided in ways.

SEE OR SEARCH THIS CLASS, SUBCLASS:

224+, for dispensers of this type depositing the dispensed article into a sliding drawer or the like, for subsequent

manipulation by movement of the drawer.

100 This subclass is indented under subclass 98. Devices in which the nondispensing compartment is pivotally supported for movement.

101 This subclass is indented under subclass 97. Devices in which a member serving as a partition between the article dispensing container and the other compartment means may have motion or may be withdrawn from therebetween.

102 This subclass is indented under subclass 97. Devices in which the nondispensing compartment is a material receiving compartment for items to be disposed of such articles before use having been dispensed by the dispensing device.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

27+, for article dispensers which retain the article against complete removal after dispensing and which may conduct the used article to a collection or storage compartment.

SEE OR SEARCH CLASS:

232, Deposit and Collection Receptacles, appropriate subclasses for deposit and collection receptacles for devices in which articles, including used articles, are placed in receptacles from time to time to be there collected for simultaneous removal at a later time. Such subject matter represents a subcombination of the subject matter classified in this subclass.

103 This subclass is indented under subclass 92. Devices in which each of the separate supply sources is exhausted in turn, i.e. one source is exhausted before a subsequent source is made available.

(1) Note. In this subclass are placed patents which include plural aligned sources from which the bottom article in each of the several sources is first dispensed by the movement of the bottom article of the most remote stack against the said bottom articles as it passes under the

several sources in reaching the egress opening. Thereafter the rearmost source is exhausted and so on through the several sources in turn from the rearmost to the most proximate relative the egress opening.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

6, for similar devices including empty supply source indicating means.
11, for similar devices having means responsive to the depletion of one stack of articles to actuate a separate control for means for causing a replacement stack to replace the depleted stack. If the sensing means and the control are the same element or instrumentality, classification is in this and the indented subclasses, and especially in subclasses 108+.
112+, in which articles are dispensed from plural sources sequentially, i.e., one from the first source, one from the second, and so on.

104 This subclass is indented under subclass 103. Devices in which a subsequent stack or source has or may have motion relative to an article releasing or ejecting means for establishment of an operative relationship with such means upon depletion of a preceding source.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

186+, for single source article dispensing devices in which the supply container is movable mounted for dispensing.
209, for single source article dispensing devices in which the supply container is movably mounted for movement into or out of position for cooperation with a discharge assistant.

105 This subclass is indented under subclass 104. Devices in which the replacement source or stack supply means has a hingedly swinging movement about a fixed axis.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

188+, for single source article dispensing devices in which the supply container is pivotally mounted for dispensing.

106 This subclass is indented under subclass 104. Devices in which the replacement source or stack supply means moves as a unit in one direction only in a straight line.

107 This subclass is indented under subclass 103. Devices in which articles present in the normal flow path between the dispensing stack and an egress outlet of the dispenser hold back or control means to block other possible replenishment or additional sources.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

104+, for plural source dispensers in which replacement sources or stacks move relative to the discharge means and in some of which such movement may take place prior to the complete discharge of the original or preceding stack so that initial dispensing from the replacement stack is prevented by the remaining articles of the preceding stack.

108 This subclass is indented under subclass 107. Devices having means preventing feeding of articles from other sources, such means being directly controlled by the articles in the discharge path.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

11, for similar automatic devices. See the note to subclass 11 in the Search Class Notes of subclass 103 for a full discussion of the distinction between automatic and condition responsive means in devices of this type.

109 This subclass is indented under subclass 108. Devices in which the means preventing feeding are gate-like members individual to at least three sources which members operate in turn.

110 This subclass is indented under subclass 103. Devices in which the plurality of separate supply compartments, sources or stacks are associated with a plurality of force applying article separators, segregators or force applicators, which are made effective one after the other in turn to discharge articles from the plurality of supply compartments, sources or stacks.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

6, for similar devices having means for indicating the empty condition of a source.

14, for similar devices having automatic means responsive to depletion of supply in a primary source to control operation of discharge assistant means for a succeeding source.

111 This subclass is indented under subclass 103. Devices in which the articles present in the dispensing stack preclude dispensing from subsequent stacks.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

104+, for plural source dispensers in which replacement sources or stacks move relative to the discharge means and in some of which such movement may take place prior to the complete discharge of the original or preceding stack so that initial dispensing from the replacement stack is prevented by the remaining articles of the preceding stack.

112 This subclass is indented under subclass 92. Devices having means or some arrangement which assures that the articles are dispensed (one from each source) from the several sources in a fixed order.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

103+, for dispensers having sources which are each completely depleted sequentially.

SEE OR SEARCH CLASS:

99, Foods and Beverages: Apparatus, subclass 450.4 for a similar combination in a machine for making a composite edible (e.g., sandwich, etc.), from preforms.

270, Sheet-Material Associating, subclass 58 for devices which arrange items having different characteristics into stack form.

- 113** This subclass is indented under subclass 112. Devices in which the several sources are supported to have turning movement about an axis relative to a single egress opening.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
119+, for rotatably mounted assemblies without regard to the order of dispensing, and particularly subclasses 121+ in which such assemblies rotate relative to single common outlet means.
- SEE OR SEARCH CLASS:
211, Supports: Racks, in appropriate "rotatable" subclasses, for rotatable rack structures.
222, Dispensing, subclass 144 for rotatably mounted plural source fluent material dispensing combinations.
312, Supports: Cabinet Structure, in appropriate "rotatable" or "rotating" subclasses for cabinet structures involving rotation of the article or material handling portion thereof, and see particularly subclass 97.1 for cabinets of the removal facilitating magazine type which are of a rotating nature.
- 114** This subclass is indented under subclass 112. Devices in which individual article separating or ejecting means are provided for each source of supply and are so interrelated the the normal cycle of operation of the device necessarily results in sequential dispensing from the various sources.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
124, for plural source article dispensing devices, having separate discharge means for each source but not limited to sequential dispensing arrangement.
- 115** This subclass is indented under subclass 114. Devices in which the article separating or ejecting means are arranged in side by side relation along a common axis.
- SEE OR SEARCH CLASS:
222, Dispensing, subclass 139 for plural source fluent material dispensing
- devices in which plural discharge assistants for the various sources are coaxially arranged and have a rotary or swinging type of motion.
- 116** This subclass is indented under subclass 114. Devices in which there are two article separating or ejecting means which operate one after the other in order, each on its own source of supply, whereby each acts to eject an article on every second operation of the device.
- 117** This subclass is indented under subclass 116. Devices having article egress outlets which are diametrically disposed either away from or toward each other.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
35, for plural dispensers of the concurrent separation and distortion type having oppositely faced, outwardly disposed egress outlet openings.
- 118** This subclass is indented under subclass 116. Devices having the sources arranged in two side by side columns of similar articles, said articles of one column being staggered with respect to those of the other column along the longitudinal axes of the columns.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
67, for articles which are disposed in staggered relation in a single column in which each article partially supports the superposed contiguous article.
- 119** This subclass is indented under subclass 92. Devices in which the plural sources, stacks or compartments are mounted upon a rigid support in such a manner as to have turning movement as a group about an axis or are mounted upon a continuous web for movement as a group along a path traversed by the web.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
113+, for plural source article dispensers rotatably mounted relative to common discharge means, and see the search notes thereto.

SEE OR SEARCH CLASS:

- 312, Supports: Cabinet Structure, subclass 97 and 97.1 for cabinet structures having article removal facilitating means including endless belt carried and rotatably mounted source assemblies, respectively.
- 120** This subclass is indented under subclass 119. Devices having plural circularly arranged and radially spaced sources, such arrangement being about and longitudinally of the axis of rotation.
- 121** This subclass is indented under subclass 119. Devices in which the dispenser rotates relative to a single egress opening for passage of the articles to the exterior of the dispenser.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 113, for plural source article dispensing devices in which the sources rotate relative to a common outlet for sequential dispensing from such plural sources.
- 133, for article dispensers which are not rotatably mounted, comprising plural sources, stacks, or compartments and having a common discharge outlet.
- 122** This subclass is indented under subclass 121. Devices having means to properly orient the source receptacle or the like with respect to the egress opening to thereby prevent a mismatching or jamming of the mechanisms.
- (1) Note. The means assuring alignment as hereinbefore defined must be other than the mere means, if any, to rotate the assembly.
- 123** This subclass is indented under subclass 92. Devices in which each of the supply sources has associated therewith a means to separate, segregate, or move articles toward an egress outlet, either by the application of a force to or by permissive release of such articles.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 135+ for fluent material dispensers having plural

sources and discharge assistant means for each source.

- 124** This subclass is indented under subclass 123. Devices in which each supply source has an individual affirmative force applier or releasing means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 114, for similar structures in which the arrangement is such that dispensing from the various sources is sequential.

- 125** This subclass is indented under subclass 124. Devices in which each source has its own separate discharging means and actuation initiator and a means available to all such separate means to prevent operation of the others upon operation of any one of said initiating means.

- (1) Note. Selective connection of an actuating element with the individual discharge means of plural sources does not constitute lockout means. Such arrangements are classified in subclasses 126+, of this class.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 126+, and see (1) Note above.
- 151+, for article dispensing devices having means for blocking or disabling the ejectors or releasers thereof.

- 126** This subclass is indented under subclass 124. Devices in which the force appliers or releasing means have actuator initiating means selectively related thereto by a manual control means common to more than one source.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 144.5 for plural source fluent material dispensing devices having selecting means, including means common to the plurality of sources.

- 127** This subclass is indented under subclass 126. Devices in which the manual control means is also the actuator initiating means.

- 128** This subclass is indented under subclass 127. Devices in which selectivity and actuation are effected by motion of the actuator-selector in opposite directions in a substantially fixed path.
- 129** This subclass is indented under subclass 124. Devices in which the force applying or releasing means includes electrical initiation or selection.
- 130** This subclass is indented under subclass 124. Devices in which two or more dispensers each complete with its own discharge means, actuator and outlet are similarly oriented and placed one upon the other.
- 131** This subclass is indented under subclass 124. Devices in which two or more dispensers, each complete with its own discharge means, actuator and outlet are arranged in side by side linear relationship.
- 132** This subclass is indented under subclass 124. Devices in which at least three dispensers, each complete with its own discharge means, actuator and outlet are similarly arranged about a point in a place.
- 133** This subclass is indented under subclass 92. Devices in which the plural sources, stacks or compartments discharge articles to a common ultimate outlet path.
- SEE OR SEARCH CLASS:
222, Dispensing, subclasses 145.1+ for plural source fluent material dispensing devices having a common discharge path.
- 134** This subclass is indented under the class definition. Article dispensers having means operative with respect to the articles of an orderly sequence or supply arrangement to remove one or more of the articles from the arrangement without regard to consecutive order.
- 135** This subclass is indented under the class definition. Article dispensers having some additional provision or means to bring about a physical or chemical change in the articles either before or after separation from the source.
- (1) Note. See "Article Treatment or Modification" of the class definition of this class (221), which is devoted to article dispensing as included in treating or modifying combinations.
- SEE OR SEARCH CLASS:
132, Toilet, subclasses 330+ for "bob-bypin" and "hairpin" dispensers provided with means for spreading the pin either concurrently with or subsequent to dispensing.
222, Dispensing, subclass 190 for fluent material dispensers with material treatment or conditioning means combined therewith.
- 136** This subclass is indented under subclass 135. Devices in which the change effecting means either assists in or directly brings about ignition of the article.
- (1) Note. This subclass is the home for nominally claimed combinations, or merely associated flint or other type lighters and dispensers without requiring an interrelationship of the two devices.
- SEE OR SEARCH CLASS:
44, Fuel and Related Compositions, subclass 643 for match scratchers, per se.
131, Tobacco, subclass 7 for match-scratching surfaces combined with cigars and cigarettes, and subclasses 185, 234 and 249 for match-scratching surfaces combined with tobacco users' appliances.
206, Special Receptacle or Package, subclasses 85+ for a tobacco container with an igniter of the tobacco content and subclasses 98+ for a match packet, container or holder with a striker surface in withdrawal path of match.
312, Supports: Cabinet Structure, subclass 86 for article magazines having removal facilitating means for slender articles in combination with igniting means.
361, Electricity: Electrical Systems and Devices, subclasses 247+ for electric igniting devices.

- 431, Combustion, subclasses 271+ for a device dispensing a cap or pellet type igniting charge from a plural charge holder and firing the charge.
- 137** This subclass is indented under subclass 136. Devices in which the igniter is a friction surface for a match.
- SEE OR SEARCH CLASS:
44, Fuel and Related Compositions, subclass 643 for match scratchers, per se.
- 138** This subclass is indented under subclass 137. Devices in which the friction surface partakes of movement which is affirmatively controlled by some motion transmitting means to cause ignition of the match.
- 139** This subclass is indented under subclass 137. Devices in which the friction surface and an egress opening or a separated match retaining means are so arranged that the manual withdrawal of the match through or by said opening or retaining means results in the contacting of the match head with the said friction surface to ignite said match.
- 140** This subclass is indented under subclass 137. Devices having an affirmative means to segregate, separate or move a match from the source of supply, said means additionally moving the match against the friction means.
- 141** This subclass is indented under subclass 140. Devices in which the motion of the discharge assistant and the arrangement of the matches in the receptacle cause the match to move in a direction corresponding to the longitudinal axis of the match.
- 142** This subclass is indented under subclass 140. Devices in which the motion of the discharge assistant and the arrangement of the matches in the receptacle cause the match to move in a direction normal to the longitudinal axis of the match.
- 143** This subclass is indented under subclass 136. Devices in which the igniting means is an electrical means.
- 144** This subclass is indented under subclass 143. Devices additionally including static or dynamic means to cause a flow of air.
- 145** This subclass is indented under subclass 144. Devices in which the flow causing means is a dynamic air moving means.
- 146** This subclass is indented under subclass 144. Devices in which the flow causing means is a tubular flue-like means.
- 147** This subclass is indented under subclass 143. Devices in which the electrical igniting means is caused to be made operative by the act of dispensing an article from the said article dispenser.
- 148** This subclass is indented under subclass 136. Devices in which a lighter of the fire striking flint type and a dispenser are so related that the said lighter is made active by the act of dispensing an article from the dispensing assembly.
- SEE OR SEARCH CLASS:
431, Combustion, subclasses 267+ for a frictional, chemical or percussive type igniter, per se.
- 149** This subclass is indented under subclass 148. Devices in which the lighter action and the dispenser operation are brought about by the motion of some article receptacle part relative to the dispenser.
- 150** This subclass is indented under subclass 135. Devices in which the change producing means effects the temperature of the articles either to positively elevate or lower such temperature.
- SEE OR SEARCH CLASS:
222, Dispensing, subclass 146 for fluent material dispensers having heating or cooling means.
312, Supports: Cabinet Structure, subclass 36 for cabinet structures having article removal facilitating means in combination with article cooling means.
432, Heating, subclasses 122+ for a residual heated work chamber having

means for manipulating individual articles.

- 151** This subclass is indented under the class definition. Article dispensers having a mechanical linkage or other means to apply a force to operate an article discharging instrumentality other than a follower and having also separate means to interpose a solid member in the path of a portion of said linkage, the force applying means, or the discharging instrumentality; to remove a force translating member from the linkage or force applying means, or to otherwise divert the action of the article discharging instrumentality.

- (1) Note. Dispensers having a discharge assistant which is biased to discharging position and which may be cocked or latched in the article receiving or retracted position and then released to discharge an article under the influence of the biasing means are not included in this or indented subclasses but are classified in subclass 271.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 13+, for similar devices in which means responsive to a changing condition operate separate control means to block or disable an ejector or releaser.
- 18, for similar devices which also have means responsive to depletion of the entire source of supply to directly cause the blocking or disabling of the operation of the discharge means.
- 125, for plural source article dispensers having lockout means under control of an actuating initiator whereby discharge means of all but a selected source are locked against operation.
- 154, for article dispensers having lock, latch or sealing means for the container or support.
- 271, see (1) Note above.
- 295, for article dispensers having article releasing means which are latch released and article weight operated.

- 152** This subclass is indented under subclass 151. Devices in which the solid member enters or engages a cut-out, groove or projection in or on

the linkage, force applying means or discharging instrumentality.

- 153** This subclass is indented under subclass 151. Devices in which the blocking or disabling means is motor operated.

- 154** This subclass is indented under the class definition. Article dispensers having (1) means to prevent or deter unauthorized separation, removal, or access to or into a dispensing receptacle or its means of support, (2) a catch type holding or fastening means for a dispensing receptacle part or support.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 19+, for similar devices in which the latch means is embodied in an empty supply source responsive means.
- 248, for outlet closures which are locked by the discharge assistant.

SEE OR SEARCH CLASS:

- 109, Safes, Bank Protection, or a Related Device, subclasses 50+ for supports and mountings for safes and bank protection and related devices.
- 222, Dispensing, subclasses 153.01+ for fluent material dispensing devices having locks or fastening seals.

- 155** This subclass is indented under the class definition. Article dispensers having a claimed transparent sight means whereby the dispenser operation or its contents may be observed, in whole or in part.

- (1) Note. Disclosure that a claimed element is transparent is not enough to warrant classification in this subclass. The feature must be specifically set forth in the language of the claims.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 2+, for indicia bearing exhibitors, especially subclass 8 for dispenser operated display devices.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 154+ for fluent material dispensing devices having inspection means including sight

openings and transparent containers or flow line sections.

156 This subclass is indented under the class definition. Article dispensers for articles which are each similarly asymmetric about at least one axis and having means to align, arrange, or selectively engage such articles so that the variations from symmetry are all turned in a desired direction or directions.

- (1) Note. The characteristics claimed must include the specific means for effecting the orienting. The broad inclusion of an element of general dispensing utility, even though disclosed as an orienting element is not enough to warrant classification in this subclass or the indented subclasses.
- (2) Note. To be classified in this subclass and the indented subclasses, a patent must include a claimed disclosure of a dispensing combination under the class definition of this class which includes the orienting feature. Where the orienting feature is claimed, per se, classification is in the appropriate other article handling class. There must be an actual rearrangement or turning of the articles as distinguished from a mere perfecting of the alignment of substantially similarly oriented articles to warrant classification in this and the indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

175+, for article dispensing devices having means to form stacks of articles from sources in which the articles are differently arranged, including hoppers. Many of such devices disclose but do not claim the orientation of the articles dispensed, and the modes of operation, insofar as the article handling means are concerned, are the same.

SEE OR SEARCH CLASS:

99, Foods and Beverages: Apparatus, subclasses 485+ for apparatus especially adopted for treating food under the class definition, note especially

subclasses 549+ for removing core-pits wherein the food is particularly oriented

- 198, Conveyors: Power-Driven, subclasses 373+ for a conveyor having means for changing the attitude of the conveyed load relative to the conveying direction.
- 209, Classifying, Separating, and Assorting Solids, appropriate subclasses, and especially in subclasses 509+ for methods and apparatus, including dispensing, for assorting physically unlike articles. If a device is in fact a dispenser under the class definition of Class 221 and all the articles handled are physically alike and means are provided for either turning the articles in a desired direction or for dispensing selectively only those which are in a desired orientation, classification is in Class 221. See (2) Note above. The line between Classes 209 and 221 is stated in section VII of the class definition of this class (221).

157 This subclass is indented under subclass 156. Devices in which the asymmetric articles are arranged one behind the other in a continuous row and having means for dividing the continuous row of articles according to desired orientation and removing either the properly or the improperly oriented articles from the continuous row.

SEE OR SEARCH CLASS:

- 193, Conveyors, Chutes, Skids, Guides, and Ways, subclass 31 for chutes, per se, which separate or turn aligned articles into different positions.
- 198, Conveyors: Power-Driven, subclasses 234+, for a device for orienting articles on conveyors, generically, including the nonpower conveyors normally found in Class 193, Conveyors, Chutes, Skids, Guides, and Ways. This class (198) will include the turning of articles, referred to in the preceding search note (i.e., to Class 193) which amounts to orientation.

158 This subclass is indented under subclass 157. Devices in which articles removed from the continuous row of articles are returned to the

- remainder of the row to reform a single continuous row, usually after turning the articles in either group so that all the articles in the reconstituted row are faced in the same direction.
- 159** This subclass is indented under subclass 157. Devices having means to return to a source of supply such of the articles as are not oriented as desired.
- 160** This subclass is indented under subclass 159. Devices in which the means to return improperly oriented articles to supply is positioned either to overhang the supply source receptacle or within the bounds thereof.
- 161** This subclass is indented under subclass 160. Devices in which the means to return improperly oriented articles to supply has motion relative to an egress opening through which properly oriented articles finally pass.
- 162** This subclass is indented under subclass 161. Devices in which the means to return improperly oriented articles to supply is a wheel or a brush which is mounted to have movement about an axis in one direction only.
- 163** This subclass is indented under subclass 156. Devices in which the source of supply retains the asymmetric articles to be dispensed in a jumbled mass and articles are segregated from the source by means which choose or allow passage of only such articles as are turned in the desired direction as they contact or are contacted thereby.
- 164** This subclass is indented under subclass 163. Devices in which the segregation of only such articles as are turned in the desired direction is effected by movable segregating means which engage and support such properly positioned articles by a slot, notch, hole or protuberance in such articles and lift them from the source of supply.
- (1) Note. The construction is such that articles lacking the head, slot notch, etc., could not be handled therein.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
167+, especially subclass 170, for dispensers having shaped outlets, which may be formed by pins which lift the article, but by surrounding it or forming a shaped passage for it.
- 179+, for article dispensing devices in which movable elements within hopper sources of supply raise articles to be dispensed above the mass of articles in such hoppers, as an incident to the segregation and dispensing of such articles.
- 254, for article dispensing devices in which a discharge assistant moves through a hopper to separate and elevate articles as an incident to the dispensing of such articles.
- 165** This subclass is indented under subclass 164. Devices for handling articles which have a body and an enlarged end in which the means permitting or compelling passage engage under the enlarged end portions to lift them from the source of supply.
- 166** This subclass is indented under subclass 164. Devices in which the segregating means reaches into or passes through the source of supply and removes articles one at a time from the source of supply when such articles are properly oriented.
- 167** This subclass is indented under subclass 163. Devices in which articles are segregated from the source of supply by means which has a rotary or oscillatable motion about a point approximately at its center, which means may be a rotary or oscillating supply container, a rotary or oscillating discharge assistant within a stationary supply container or any combination of movable and stationary members.
- (1) Note. Segregation is usually effected by the articles being compelled or allowed to pass through egress openings which are of such dimensions and irregular form as to permit passage of only such articles as are properly oriented.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
182, for stack forming article dispensing devices having members rotatable or oscillatable about inclined axes.

- 168** This subclass is indented under subclass 167. Devices, having in addition to the rotary or oscillating discharge means one or more of the following means, which may or may not be rotary; (1) an agitator within the supply container, (2) means operating on articles which have passed through at least one segregation-orientation stage to forward them along or through the discharge path, which means may perform a second orienting operation, (3) means operating on the articles to take care of an over supply or jamming of articles which have passed through at least one segregation-orientation stage, whether they remain in the confines of the supply container or have passed into a chute or stack holder.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 243, for lost motion devices to relieve actuator pressure on discharge means when the outlet is blocked and for mere expansible chutes or outlets to relieve jamming, and see the search notes thereto for overload relief searches generally.

- 169** This subclass is indented under subclass 167. Devices in which a plurality of shaped egress openings are provided between or in wall-forming elements of the dispenser which have rotary or oscillating motion, so that the openings pass successively by the point or points at which the oriented articles are diverted into chutes or stacks.

- (1) Note. Shaped egress openings are those of irregular form corresponding to that of the articles so that only those articles having the desired orientation can pass through.

- 170** This subclass is indented under subclass 169. Devices, in which the shaped egress openings are formed by pins or applied projections carried by or opposed to a rotary member. The pins may be more closely spaced than the width of the articles being handled, with one pin entering in a cavity of the article as it passes between the pins on either side.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 166, for pins which pick up and carry a cupped or hollowed article by entering the depression therein and thus carry only properly oriented articles to the exit.

- 171** This subclass is indented under subclass 156. Devices in which the articles are turned in the desired direction or directions by means acting individually on each article as it passes, if such article is not turned in the desired direction.

- 172** This subclass is indented under subclass 171. Devices in which the articles are moved along a path of travel by the force of gravity and in which the means acting to turn the articles are stationary elements which are interposed in said path of travel and which successively engage and turn such of said articles as are not oriented as desired.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 311, for deflectors for separating articles from sources of supply.
312, for article dispensers having stationary interior guiding means, and see the notes thereto for other collections of art relating to stationary deflector elements in article dispensing devices.

- 173** This subclass is indented under subclass 171. Devices in which the means acting to turn the articles is a mechanical instrumentality which has motion relative to the path of movement of the articles and successively engages and turns such of said articles as are not oriented as desired.

- 174** This subclass is indented under the class definition. Articles dispensers in which a source of supply delivers articles to a receptacle in which they are retained in a nonstacked or disorderly fashion, said receptacle having means to discharge said articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 10+, for similar combinations including means to automatically control the supply to the receptacle.

175+, for dispensers in which a supply feeds to a dispensing receptacle in such a manner as to form stacks therein.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 56 for similar combinations, automatically controlled, in fluent material dispensing devices.

414, Material or Article Handling, subclasses 266+, 287, 288+, and others for means to charge or discharge a material storage container.

175 This subclass is indented under the class definition. Article dispensers having means other than or in addition to supply container configuration to affirmatively cause articles from a supply container or other supply source to be formed into a single, continuous, orderly sequence, or linear arrangement which is different as to type or as to direction of orientation than the arrangement of the articles prior to the operation of said means.

(1) Note. There must be an actual formation of a stack from some substantially different arrangement to warrant classification in this and the indented subclasses. Therefore, means to merely perfect the alignment of a stack as by mere straightening are not included herein.

SEE OR SEARCH THIS CLASS, SUBCLASS:

68, for plural dispensing stacks formed from a single source.

156+, for similar devices including, also, means to orient asymmetric articles in the dispensing operation.

157+, and 163+, for similar combinations including, also, means for orienting asymmetric articles.

174, for means to supply articles to a dispensing hopper in which the articles are not stacked.

SEE OR SEARCH CLASS:

270, Sheet-Material Associating, subclasses 58.01+ for devices which arrange items having different characteristics into stack form.

176 This subclass is indented under subclass 175. Devices in which the supply source is in stack form.

177 This subclass is indented under subclass 175. Devices in which the stack forming means includes a movable supply source receptacle which has angular back and forth movement about an axis, said axis being in a direction substantially perpendicular to the normal line of flow of the articles through the receptacle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

188+, for article dispensers in which the supply container is movably mounted for dispensing, there being no stack forming arrangement included.

178 This subclass is indented under subclass 175. Devices in which the stack forming means includes an article guideway, channel, way or the like to receive the orderly sequence of articles, all or part of which has motion for the stated function.

179 This subclass is indented under subclass 178. Devices in which the moving chute or part thereof has such motion within the physical bounds of the supply receptacle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

164+, for orienting type article dispensers having movable lifting elements for engaging and removing articles from a source of supply.

SEE OR SEARCH CLASS:

470, Threaded, Headed Fastener, or Washer Making: Process and Apparatus, subclasses 164+ for distributors and feeders specialized to the purpose of Class 470 or combined with Class 470 machines in which inclined chutes (sometimes movable) are operated to remove articles from a source of supply.

180 This subclass is indented under subclass 179. Devices in which the moving chute part has a rocking motion about a fixed axis.

181 This subclass is indented under subclass 179. Devices in which the moving chute or part thereof has motion in a direction along the longitudinal axis of the said chute.

182 This subclass is indented under subclass 175. Devices in which the stack forming means includes a member which has rotary or to-and-fro movement about a fixed axis, which axis is angularly disposed to the horizontal.

- (1) Note. The “member” may be the entire supply source container, a portion thereof, or any other structure for performing the stack forming function.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

167, for orienting type article dispensing devices having rotatable or oscillatable means causing segregation and orientation of the articles.

183 This subclass is indented under subclass 175. Devices in which the stack forming means includes a shaking or stirring means co-related with, operated by, or fixedly supported on or within the structure of means which applies an affirmative force to or permits release of an article.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

168, for agitators combined with discharge assistants of a rotary or oscillatable type which orient articles by selective separation from the supply.

178+, for similar combinations in which the agitator serves as a chute or part thereof in guiding articles toward an outlet.

202+, for agitating means rigidly mounted on or incorporated in discharge assistants.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 226+ for fluent material dispensing devices having agitators followed by discharge assistants and/or interconnected discharge controllers.

184 This subclass is indented under subclass 183. Devices in which the agitator is fixedly supported on or included in or within the discharging means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

202+, for agitating means rigidly mounted on or incorporated in discharge assistants.

185 This subclass is indented under the class definition. Article dispensers having

- (1) means especially adapting them to be carried and supported by the body, or

- (2) means providing for the mobility of the said dispensers over the surfaces on which they are supported.

- (1) Note. The means especially adapting the article dispenser to be carried and supported by the body must be an additional claimed structure over and above that which is essential to the dispensing operation.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

282+, for dispensers provided with other supporting means not restricted to mobility and body carrying features.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 175, for body carried and/or operated fluent material dispensers, and subclasses 608+ for ambulant fluent material dispensers.

224, Package and Article Carriers, appropriate subclasses for body and belt catch devices, and see particularly subclass 196 for magazine type cartridge carriers.

186 This subclass is indented under the class definition. Article dispensers having means supporting a supply means or receptacle for articles for motion relative to such support, the motion imparted to the said receptacle being effective to separate, segregate or move the articles from the receptacle to a point of egress.

- (1) Note. Substantially all of the articles and the immediate supporting or confining means move as a unit either with a discharge assistant or relative to a discharge assistant, the supply quantity being substantially determinate and varied only by the number of articles dispensed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 76, for article dispensers of the cellular magazine type, in which the cellular magazine sources of supply are mounted on conveyors for movement relative to a support.
- 113, for article dispensers having plural rotatably mounted supply sources movable as a unit past common outlet means for sequential dispensing from the plural sources.
- 119+, for plural source article dispensing devices in which the plural sources are rotatably mounted or carried upon an endless belt.
- 209, for movably mounted supply containers which move the entire supply with respect to a discharge assistant as an incident to dispensing, the container movement however, not being effective to separate or segregate the articles.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 160+ for fluent material dispensers having movably mounted supply containers.

- 187** This subclass is indented under subclass 186. Devices provided with an article manipulator or other motion directing means which causes the article to have movement in a direction at right angles to the normal direction of dispensing movement of the supply container.

- 188** This subclass is indented under subclass 186. Devices in which the supply container is mounted for angular back and forth movement about a fixed axis.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 105, for plural source article dispensing devices in which replacement sources

- have pivotal movement about a fixed axis relative to discharge means.
- 177, for pivoted hoppers which form part of a stack forming organization.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 164+ for fluent material dispensers having supply containers which are tiltably mounted.

- 189** This subclass is indented under subclass 188. Devices in which the supply container moves with respect to a fixed article compartment or holding means to deposit the article therein and which compartment or means substantially embraces the separated article.

- 190** This subclass is indented under subclass 186. Devices in which the receptacle has relative up and down movement, such movement raising or lowering all but the segregated articles, thereby isolating said articles for removal.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 164+, for orienting type article dispensers in which articles are selectively separated from supply by movably lifting means which have movement relative to the source of supply to relatively lift the selected articles from said supply.
- 254, for dispensers having a discharge assistant movable through a stationary hopper to separate and elevate articles.

- 191** This subclass is indented under the class definition. Article dispensers having a fixed supporting surface or shelf which is positioned to receive the dispensed articles and hold such articles so that they can be removed by the hand of an operator.

- (1) Note. The supporting surface or shelf must not be that part of a discharge assistant, an article releaser or a dispensing type outlet which causes or controls article segregation.

- (2) Note. Articles retained for manual removal by article adhering or gripping type discharge assistants are elsewhere.

- (3) Note. Articles retained for manual removal by a relatively movable closure after ejection from the source of supply by a claimed ejector are elsewhere.
- (4) Note. Articles retained for manual removal by an article releaser element are classified with the appropriate article releasing combination. See the search notes below.
- (5) Note. See the search notes below for articles retained for manual removal by a dispensing type outlet.
- (6) Note. Segregated articles delivered to hold-down means are not in this or the indented subclasses but may be found elsewhere when included in combinations involving discharge assistant means, or where segregated articles may release holddown means. See the search notes below.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 189, for movably mounted supply containers delivering articles to stationary trap structures.
- 210+, for articles retained for manual removal by article adhering or gripping type discharge assistants. see (2) Note above.
- 239, for segregated articles delivered to hold-down means. see (6) Note above.
- 247, for articles retained for manual removal by a relatively movable closure after ejection from the source of supply by a claimed ejector . see (3) Note above.
- 255+, for Articles retained for manual removal by other types of discharge assistants.see (2) Note above.
- 289+, for aarticles retained for manual removal by an article releaser element. see (4) Note above.
- 294, for where segregated articles may release holddown means. see (6) Note above.
- 303+, for articles retained for manual removal by a dispensing type outlet. see (5) Note above.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 205 for fluent material dispensers in which nongravity means are used to feed materials to traps for manual removal.

- 192** This subclass is indented under subclass 191. Devices in which the fixed supporting surface or shelf is disposed above the level of the point of separation of the article from the source and the article is deposited thereon either by the discharge assistant or by some additional manipulating means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 254, for dispensers having a discharge assistant movable through a stationary hopper to separate and elevate articles.

- 193** This subclass is indented under subclass 191. Devices in which the entrance or the path leading to the supporting means is provided with a static means for contact with a moving article approaching such support for the purpose of arresting at least part of its velocity.

- 194** This subclass is indented under subclass 191. Devices in which separated articles are free to fall to the stationary article support without the intervention of an affirmative carrying means.

- 195** This subclass is indented under subclass 194. Devices in which an affirmative means causes the separation of the article from the source prior to its deposit on a support.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 255+, for article dispensers in which segregated articles are retained by the discharge assistant for manual removal.

- 196** This subclass is indented under subclass 195. Devices in which the affirmative separating means is provided with a compartment or cooperates with relatively fixed structure to form a compartment which substantially embraces the articles being discharged.

- 197** This subclass is indented under the class definition. Article dispensers in which the receptacle for the articles to be dispensed is so related to a surrounding enclosure which has a discharge means or a dispensing type outlet that it is separable therefrom for either refilling or to be replaced by a full supply receptacle.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 46, for similar combinations in dispensers which dispense flexible articles by concurrent separation and distortion of such articles.
- 49, for refill packages for article dispensers of the concurrent separation and distortion type.
- 61+, and 281, for article dispensers having inlet means other than the egress outlet for replenishing the supply.
- 287, for article dispensers in which the articles are enclosed by a supply container which is removable from the remainder of the structure either with the articles or separate therefrom.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 325+ for similar arrangements in fluent material dispensers, and see the search notes thereto.

- 198** This subclass is indented under subclass 197. Devices having a force applying member operative through the articles in the separable and replaceable supply receptacle to urge such articles to a point of egress.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 279+, for article dispensers having followers and see the search notes to that subclass for other pertinent search fields.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 326+ for similar combinations in fluent material dispensers.

- 199** This subclass is indented under the class definition. Article dispensers (1) claimed in combination with features other than the supply container structure, the casing or support therefor,

and discharge assisting or controlling means and not provided for in other classes or in preceding subclasses of this class; or (2) having means or parts capable of structural rearrangement or modification to selectively provide either a dispenser of some other kind or a device of some other description.

- (1) Note. This class is residual as to combinations of article dispensers and subject matter classifiable in other classes and takes such combinations only when such other classes do not provide for them. Examples of such combinations which are included in this subclass are; capped bottle dispensers with bottle uncapping means and straw delivery to the said bottle, substance penetrating and capsule feeding, dispensers with lubricating means, dispensers combined with a tray (such tray not qualifying as a second compartment), dispensers with fixed nondispenser operated display means, dispensers combined with article cleaning (e.g., air draft) means, and dispensers combined with certain art devices which serve as supports or means for mounting such dispensers. See References to Other Classes of the class definition of this class for a listing of other classes which provide for article treating and modifying combinations which include article dispensing and note also a listing of classes having related material handling combinations.

- 200** This subclass is indented under the class definition. Article dispensers having means to shake or stir either the supply container or the articles therein to impart either a small or large amplitude of motion to the articles relative to one another for the purpose of facilitating passage of the articles towards the discharge means.

- (1) Note. The agitating means must be means other than a discharge assisting means. Thus, a dispenser having an element which applies an affirmative force to segregate articles from a supply container and which is so constructed that it inherently agitates articles in the supply container and does not have any structural addition or modification to perform an agitating function, is classified in the

appropriate subclass under subclasses 208+. See for example, subclass 254 in which are classified dispensers having discharge assistants movable through hoppers to elevate articles, such discharge assistants having an inherent incidental agitating function.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 156+, for orienting type article dispensing devices, in which it is common to provide agitating means to stir a jumbled mass of articles in causing the orientation and dispensing of such articles. See particularly subclasses 167+ directed to rotatable or oscillatable means for agitating and discharging the articles.
- 175+, for dispensers having means to form stacks of articles from sources of supply of articles originally otherwise arranged, and in which, generally, either the supply container or the outlet path is agitated or shaken.
- 186+, for dispensers in which the articles supply container is so mounted as to be movable to effect a dispensing operation.
- 208+, see (1) Note above.
- 254, see (1) Note above.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 161+, 195+, 196+, 216+, and 226+ for fluent material dispensers including agitating means.

- 201** This subclass is indented under subclass 200. Devices which include at least three serially acting agitating, vibrating or jarring means and/or means applying an affirmative force to push articles towards a point of egress, there being at least one agitating, vibrating or jarring means in the combination.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 225, for dispensers having three or more serially acting discharge assistants or article manipulating means.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 227 for similar combinations in fluent material dispensers, and subclass 254 for fluent material dispensers in which three or more discharge assistants are included.

- 202** This subclass is indented under subclass 200. Devices in which the shaking or stirring means is fixedly supported on or included in or within the structure of means which applies an affirmative force to articles to push them towards a point of egress.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 183+, for similar structures in stack forming article dispensers.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 248 for fluent material dispensers having reciprocating agitator-discharge assistant constructions which are unitary.

- 203** This subclass is indented under subclass 202. Devices in which the discharge assistant and the associated shaking or stirring means are mounted to have movement about a fixed axis in one direction only.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 237, for article dispensers having plural, serially acting rotary discharge assistants.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 242 for rotary coaxial agitator-discharge assistant constructions in which the agitator is rigidly mounted on the discharge assistant.

- 204** This subclass is indented under subclass 200. Devices in which the shaking or stirring of the articles in the supply container is caused by means imparting motion to one portion of the container structure relative to another portion thereof.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

178+, for dispensers having stack forming means in which a portion of the supply hopper or an element associated with the outlet is movable to stir or shake the article and/or form a stack thereof.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 198 through 203 for fluent material dispensing devices involving jarring and/or vibrating of the fluent material in the operation of such dispensing devices and in which, in various ways, container sections are moved to effect such jarring and/or vibrating.

205 This subclass is indented under subclass 204. Devices in which the portion of the container structure which is moved has angular back and forth motion about a point of mounting.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

180, for article dispensers having stack forming means including oscillating pivoted chute sections operating within the supply hopper.

206 This subclass is indented under the class definition. Article dispensers having means to selectively vary the number of articles delivered as a result of a single operating cycle.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

94, for devices for dispensing from plural sources by a single actuation, such devices being selective as to the number of sources dispensed therefrom.

252, for dispensers having article discharge assisting means and feeding to plural material outlets which are not selectively operable.

296, for dispensers in which plural controllers are spaced to dispense plural articles, no selective adjustability feature being present.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 14+ for fluent material dispensers having means to terminate material discharge, such mechanism being preset at the desired volume before discharge begins.

207 This subclass is indented under subclass 206. Devices in which the means to selectively vary the number of articles delivered per cycle is by a rearrangement of the relative position or size of parts of the dispenser organization.

208 This subclass is indented under the class definition. Article dispensers having means to affirmatively segregate, separate or move the articles from a supply source toward a point of egress.

(1) Note. The weight of the articles, alone, is not considered as an affirmative means for this and the indented subclasses. The application of a force other than gravity tending to move an article or articles relative to other articles to effect a segregation or separation is necessary.

(2) Note. Where an element applying a force to segregate articles has an agitating function as an incident thereof and has combined therewith some other discharge assisting means classification is in subclasses 200+. See also the note to the definition of subclass 200.

(3) Note. Included in this group (see subclass 246 as an exception to the requirement that an affirmative force be applied to the article to effect segregation) are devices in which the sliding movement of the cover of a supply receptacle effects segregation of an article from the remainder of the supply, but does not necessarily affirmatively move any of the the articles.

(4) Note. See "General Statement Of Class Subject Matter" C subsection (4) of the class definition for a discussion of discharge assisting means as provided for in this class.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 251+ for equivalent discharge assistant dispensing combinations for the handling of fluent materials.

209 This subclass is indented under subclass 208. Devices in which the supply source is mounted upon a support for motion relative thereto and for positioning or alignment relative to the discharge assistant whereby the supply as a whole may be selectively positioned with respect to or advanced toward the discharge assistant to place the supply of articles, or a portion thereof, in the operative path of the discharge assistant.

- (1) Note. Substantially all of the articles and the immediate confining means move as a unit relative to the discharge, the supply quantity being substantially determinate and varied only by the number of articles dispensed.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

92+, and especially subclasses 113 and 119+, for a plurality of dispensing sources which may move relative to a discharge means.

186+, for movably mounted supply containers in which the movement of the container is effective to separate or segregate the articles.

197+, for supply containers removable from an enclosing casing for refilling or replacement.

210 This subclass is indented under subclass 208. Devices in which the discharge assistant is provided with means or is of such form as to affirmatively hold articles during separation thereof from the supply as, for example, by gripping, piercing, adhesion, etc., as distinguished from structures which rely upon gravity or attitude or relatively stationary walls of the dispensing device to maintain the articles and discharge assistant in cooperative relationship.

- (1) Note. Oppositely disposed discharge assistants having ever-changing surface contact with opposite sides of articles as they are dispensed are not considered to

be grippers for this and the indented subclasses and are classified in other appropriate subclasses, see for example subclass 259.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

164+, for orienting type article dispensing devices in which articles are selectively separated from the source of supply by movable lifting means engageable with portions of such articles.

259, see (1) Note, above.

SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclasses 455+ for clasps, per se.

198, Conveyors: Power-Driven, appropriate subclasses for power-driven conveyors with such means, particularly subclasses 468.2+ and 688.1+.

294, Handling: Hand and Hoist-Line Implements, appropriate subclasses for hand and hoist-line grapples.

211 This subclass is indented under subclass 210. Devices in which the affirmative holding means operates by reducing the air or other fluid pressure on at least a part of articles to be engaged, the articles being thus affirmatively held thereto by the pressure of surrounding air or other fluid pressure medium.

SEE OR SEARCH CLASS:

111, Planting, subclasses 179+ and 185+ for vacuum type discharge assistants for dispensers claimed in combination with planting machines.

198, Conveyors: Power-Driven, subclass 428, 438, 449, and 689.1 for a conveyor having a suction type load holder.

294, Handling: Hand and Hoist-Line Implements, subclasses 64.1+ for handling, hand and hoist-line implements in which the load engaging means is in the nature of a vacuum-cup element.

212 This subclass is indented under subclass 210. Devices in which the affirmative holding means is a magnet.

SEE OR SEARCH CLASS:

- 198, Conveyors: Power-Driven, subclass 679 and 690.1 for a conveyor having magnetic load retaining means.
- 294, Handling: Hand and Hoist-Line Implements, subclass 65.5 for such implements in which magnetic means are incorporated for raising articles or material.

- 213** This subclass is indented under subclass 210. Devices in which the affirmative holding means is in the form of an element which penetrates the articles for transfer and discharge.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 30+, for article dispensers including cutter or punch means for forming dispensing openings and for other purposes not related to a discharge assisting function.
- 166, for orienting type article dispensing devices in which selective separation of properly oriented articles from supply is effected by individual picker fingers entering apertures or depressions, etc., in such articles.
- 240, for discharge assistants which cooperates with preformed holes or apertures in the articles.
- 259, for discharge assistants which frictionally engage surfaces of the articles to discharge same and which may have projections or be roughened but do not penetrate the articles.

SEE OR SEARCH CLASS:

- 198, Conveyors: Power-Driven, subclass 692 for a conveyor having load impalers.
- 209, Classifying, Separating, and Assorting Solids, subclass 688 for assorting devices which assort and remove articles by the use of penetrating means.
- 222, Dispensing, subclasses 80+ for fluent material dispensers including cutters and punchers.

- 214** This subclass is indented under subclass 213. Devices having means to disengage or remove the articles from the impaling means.

SEE OR SEARCH CLASS:

- 30, Cutlery, subclasses 128+ for cutlery implements combined with means to eject or strip material from such implements.
- 198, Conveyors: Power-Driven, subclass 693 for a conveyor having load impalers and means for assisting load removal from the latter.

- 215** This subclass is indented under subclass 214. Devices in which either a stripper element or an impaling element is actuated by a cam to impart motion relative to the normal position or path of travel of the other, to perform a stripping function.

- 216** This subclass is indented under subclass 214. Devices in which the means to disengage or remove the articles is a stripper element which is supported in a fixed position to a stationary part of the dispenser.

- 217** This subclass is indented under subclass 210. Devices in which the affirmative holding means engage the articles by pressure on several opposite sides of their exterior to transfer them for discharge and in which such holding means are mounted upon either a revolving or continuous member to be conveyed thereby through the transfer and discharge cycle.

SEE OR SEARCH CLASS:

- 198, Conveyors: Power-Driven, subclasses 468.2+ and 470.1+ for a rotary conveyor having load gripping members.

- 218** This subclass is indented under subclass 217. Devices in which the holding means are mounted on a continuous or endless member.

SEE OR SEARCH CLASS:

- 198, Conveyors: Power-Driven, subclasses 468.2+ and 470.1+ for an endless belt conveyor having load gripping members.

- 219** This subclass is indented under subclass 217. Devices in which the article holding means comprises article engaging elements which are mounted for swinging motion and to which rel-

ative motion is imparted by contact with tapered or curved surfaces.

SEE OR SEARCH CLASS:

198, Conveyors: Power-Driven, subclass 468.2 and 470 for a conveyor having cam actuated load gripping members.

220 This subclass is indented under subclass 210. Devices in which the affirmative holding means comprise elements made of elastic material which exert a return pressure when bent out of their normal rest position.

221 This subclass is indented under subclass 208. Devices in which there are two or more discharge assistants positioned at spaced points about the periphery of the discharge path of the articles and acting on the same articles at the same time to compel discharge of the articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

297, for article dispensers having plural, circumposed and simultaneously acting mechanical releasing elements.

SEE OR SEARCH CLASS:

312, Supports: Cabinet Structure, subclass 43 for cabinet structures for cup shaped articles not including a dispensing feature.

222 This subclass is indented under subclass 221. Devices in which the multiple discharge assistants each has movement about a fixed axis in one direction only.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

277, for dispensers having rotary article discharge assisting means, and see the notes thereto.

223 This subclass is indented under subclass 221. Devices in which the discharge assistants each has movement which is alternately forward and backward, to and fro, in alternate direction in an arcuate path.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

268+, for article dispensers having oscillating and reciprocating discharge assistants.

224 This subclass is indented under subclass 208. Devices having two or more discharge assistants or having at least one discharge assistant combined with article handling means which apply force to cause nongravity movement of the articles.

(1) Note. Plural similar instrumentalities which are actuated by a common power source or linkage to concurrently engage one article and apply a discharging force to that article are considered to be a single discharge assistant and are excluded from this and the indented subclasses and are classified in appropriate subclasses below. Similarly, unitary or substantially unitary devices having pluralities of article engaging and discharge assisting surfaces (i.e., endless belt carried discharge assistants as in subclass 253, segregating chamber structures having plural chambers as in subclasses 263+, etc.) in which the surfaces carry successive articles through the same path to the outlet are excluded and placed in other appropriate classifications as indicated.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

157+, and 171+, for dispensing and orienting combinations including means for handling the articles subsequent to segregation from the source of supply.

187, for devices in which an article is dispensed in response to motion of a supply container, means being provided to subsequently move the dispensed article in a direction normal to that of the movement of said supply container.

290+, for dispensers having means to release articles, as by gravity, and to subsequently manipulate such articles.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 252+ for fluent material dispensers having plural discharge assistant means.

225 This subclass is indented under subclass 224. Devices having three or more distinct discharge assistants or manipulating means arranged to serially act on the articles.

(1) Note. One of the discharge assistants may be a follower.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

201, for similar combinations including at least one means for agitating, vibrating, or jarring articles in the supply container.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 254, for similar combinations in fluent material dispensers, and subclass 227 for such combinations in which the first of the series is an agitator.

226 This subclass is indented under subclass 224. Devices in which one of the discharge assistants is for the type which applies a force which is exerted through all of the articles tending to move the entire supply toward the egress outlet, and which is movable relative to other supply supporting or containing structure.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

279+, for article dispensers having followers and not including other discharge assisting means, and see the search notes thereto.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 256+ for fluent material dispensing devices having followers combined with casing enclosed impellers.

227 This subclass is indented under subclass 226. Devices having (1) means to render the follower useless, (2) means to draw the follower back into the supply container, or (3) means to

disengage the follower from movement obstructing means.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

57, for article dispensers of the concurrent separation and distortion type having followers and replenishment interlocks therefor.

228 This subclass is indented under subclass 226. Devices in which the supply receptacle has an opening and a lid or closure therefor, and a discharge assistant which cooperates with or operates in said closure or lid to segregate articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

248+, for similar structures not including a follower, and see the search notes thereto.

229 This subclass is indented under subclass 228. Devices in which the cooperation between the lid or closure and the discharge assistant is such that in the normal operation of the device, actuation of the discharge assistant to discharge articles is effected by movement of the closure or lid.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

37, for dispensers for concurrently separating and distorting flexible articles in which movement of a wall portion causes ejector operation, no follower being included.

249, for similar devices not including a follower.

230 This subclass is indented under subclass 226. Devices in which the follower and at least one other discharge assistant are provided with separate actuating means which are physically connected together so as to give controlled relative motion to the follower and discharge assistant.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

234, for article dispensers having segregating chamber and ejector means which are mechanically interconnected.

231 This subclass is indented under subclass 226. Devices in which a discharge assistant which has motion about a fixed axis in one direction only to act directly upon the article being separated to force the article from the source is included in combination with the follower.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

277, for article dispensers having rotary discharge assistants and see the search notes thereto.

232 This subclass is indented under subclass 226. Devices in which a discharge assistant which has a backward and forward, or to and fro motion to act directly upon the article being separated to force the article from the source of supply is included in combination with the follower.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

268+, for dispensers having reciprocating discharge assistants and see the search notes thereto.

SEE OR SEARCH CLASS:

30, Cutlery, subclass 40 for razors claimed in combination with dispensing type blade magazines, many of which include reciprocating discharge assistant means combined with followers.

233 This subclass is indented under subclass 224. Devices having a discharge assistant in the form of a movable compartment which embraces articles as they are separated from the supply source, and having other means to exert a force to discharge such articles from the compartment.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

263, for dispensers having segregating chambers from which articles are removed by gravity.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 216+ for similar combinations in fluent material dispensers.

234 This subclass is indented under subclass 233. Devices in which the segregating chamber and the means to exert a force to discharge the articles therefrom are physically connected together.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

246, for dispensers for articles in which sliding cover movement is interrelated to discharge assistant actuation.

248+, for article dispensers having mechanically linked discharge assistants and outlet closures.

235 This subclass is indented under subclass 233. Devices in which the means to exert a force to discharge the articles is a movable element which is capable of extending into the segregating chamber and is gravity or spring biased so as to be normally so extended.

236 This subclass is indented under subclass 224. Devices in which the plurality of discharge assistant or handling means act individually and serially upon the articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

202+, for article dispensers in which an agitator is rigidly mounted on or incorporated in a discharge assistant.

225, for similar combinations in which there are three or more serially acting discharge assistants.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 252+, for fluent material dispensers having plural discharge assistants.

237 This subclass is indented under subclass 236. Devices in which the plurality of discharge assistant and/or handling means each has movement about a fixed axis in one direction only.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

277, for article dispensers having rotary discharge assistants, and see the search notes thereto.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 236+ for fluent material dispensing devices in which a rotary agitator or discharge assistant is followed by another rotary discharge assistant to cause discharge of the fluent material.

- 238** This subclass is indented under subclass 236. Devices in which the plurality of discharge assistants and/or handling means each has a character of motion which is alternately forward and backward, to and fro, or in alternate directions.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

268+, for article dispensers having reciprocating discharge assistants and see the search notes to subclass 268.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 243+ for reciprocating (including oscillating) agitators or discharge assistant means followed by other reciprocating or oscillating discharge assistant means in fluent material dispensing devices.

- 239** This subclass is indented under subclass 208. Devices having means to receive and support segregated articles after they have been dispensed by the discharge assisting means and having associated therewith some means to detachably clamp or grip such articles.

- (1) Note. See References to Other Classes of the class definition for a discussion of the relationship of this subclass and of Class 221 in general to the various work modifying and work feeding classes.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

255+, for article dispensers in which the articles dispensed are retained by the discharge assistant means for manual removal therefrom.

294, for similar devices in which the article segregation is by mechanical release rather than be discharge assisting means.

240

This subclass is indented under subclass 208. Devices in which the discharge assistant exerts its force either on irregularities or protuberances on the general outlines of the articles or upon portions of the articles which are doubled over upon the remainder of the articles or upon the material connecting such doubled over portions.

- (1) Note. This subclass includes discharge assistants which cooperate with a pre-formed hole or aperture in the articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

38, for dispensers in which flexible articles are discharged and concurrently distorted by ejecting means which cooperate with folds in the articles.

156+, for dispensers which segregate and orient articles with respect to irregularities or (protuberances) in the shapes of the articles, and especially subclasses 164+, wherein the articles are selectively separated from the supply by means engaging such irregularities.

241

This subclass is indented under subclass 208. Devices in which means are provided to selectively vary the dimensions of the dispenser or some part thereof to thereby accommodate different size articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

44, for dispensers for flexible articles which are adaptable to use with different size articles.

304, for outlet size adjusting means for article dispensers.

242

This subclass is indented under subclass 241. Devices in which the supply source dimensions are selectively variable.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

65, for article dispensers in which the supply container telescopes or collapses as the articles are dispensed therefrom.

243 This subclass is indented under subclass 208. Devices wherein the connection between the actuating means and the discharge assistant is such that during part of its discharge assisting actuating travel the actuator or a part thereof may move without producing any movement of the discharge assistant, or wherein a wall or walls of the outlet area or receiving area for the dispensed articles are movably mounted and biased to normal position, yielding under pressure of jammed or over supplied articles to provide additional space for articles or to allow some of them to escape from the desired dispensing path.

- (1) Note. The lost motion in the actuator may be for delay or correlation of operations, although its usual purpose is to avoid breakage if the articles jam or an over-supply accumulates.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 15, for article dispensing devices having timing or delay mechanism.
- 21, for article dispensers with malfunctioning responsive means which (1) supply the deficiency of articles by means other than restoring the device to operative condition, (2) change the mode of operation of the device to overcome the difficulty or (3) stop the operation of the dispenser.
- 64, for dispensers having yieldable walls which are manipulated to release or expel articles.
- 160+, for means for removing improperly positioned articles from a previously aligned row in a dispenser for orienting and discharging asymmetrical articles.
- 168, for means to relieve jamming or over supply in rotary or oscillating feeders which orient articles by selective separation from the supply.
- 233+, for article dispensers having means to remove articles from a movable segregating chamber, and see the search notes to those subclasses.
- 252, for plural material outlets in article dispensers having discharge assistants.

- 267, for dispensers which normally eject the article through a resiliently restricted outlet.

SEE OR SEARCH CLASS:

- 74, Machine Element or Mechanism, appropriate subclasses for mechanical movements and control lever and linkage systems having lost motion provisions.
- 137, Fluid Handling, subclasses 455+ for line condition change responsive valves, especially subclass 527 for direct response pivoted valves.
- 222, Dispensing, subclass 318 for discharge assistants for fluent material which have means to return dispensed material to the supply; subclasses 337+ and 512 for fluent material dispensers having material confining walls which are yieldably mounted and normally biased to joint sealing position; subclasses 345+ for striking or cleaning means for movable or conveyor type trap chambers for dispensing fluent materials.
- 251, Valves and Valve Actuation, subclasses 77+ for valve actuators having lost motion provisions.

244 This subclass is indented under subclass 208. Devices in which the discharge assisting means is of such a nature and is so supported that it changes its position of rest relative to the container and the plane of its action in order to engage successive article as the supply is progressively depleted.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 405 for fluent material dispensing devices having discharge assistants in which the discharge of material is from the top of the supply.

245 This subclass is indented under subclass 208. Devices in which the discharge assistant includes means to prevent retrograde motion prior to completion of a full discharging cycle to insure a full stroke of the mechanism.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 375 for fluent material dispensers having a dis-

charge assistant and provided with full stroke mechanism.

- 246** This subclass is indented under subclass 208. Devices in which the supply container is a receptacle having an opening and lid or closure which has sliding motion across the said opening and in which segregation is caused by the sliding motion of the lid or closure.

- (1) Note. This subclass includes devices in which sliding movement of the cover acts to segregate an article from the remainder of the supply, but does not necessarily affirmatively move any of the article. See (3) Note to the definition of subclass 208.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 149, for article dispensers combined with igniting means in which movement of a container part initiates operation of the lighter and dispenser combination.
269, for article dispensers having reciprocating discharge assistants with integral outlet closures, and see the search notes thereto.

SEE OR SEARCH CLASS:

- 206, Special Receptacle or Package, subclasses 37+ and 38+ for a pocket type receptacle not including discharge assistant means, or other structure of a nature to define an article dispenser under the class definition of Class 221.

- 247** This subclass is indented under subclass 208. Devices in which the discharge assistant directly engages and pushes the article to be dispensed toward an egress outlet, the egress outlet having a closure member which operates independently of the segregating function and which has motion relative to the ejector.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 37, for dispensers for flexible articles having ejecting means which are actuated by source container section movement.
228, for article dispensing devices having followers and having also ejecting

elements which are related to source container cover structures.

- 246, for article dispensing devices in which segregation is caused by sliding movement of a cover element relative to the container, and see the search notes thereto.
267, for ejectors pushing articles individually through a dispensing type outlet.
306, for article dispensers having a dispensing type outlet and separate closure means to control access to the segregated articles.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 380 and 387 for fluent material dispensers having discharge assisting means and valved outlets.

- 248** This subclass is indented under subclass 247. Devices in which (1) the discharge assistant and the closure means are physically interconnected so as to have controlled movement relative to one another or to the egress opening, or (2) the discharge assistant is so arranged as to prevent operation of the closure in certain positions of its operating cycle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 37, for flexible article dispensers having ejecting means which are actuated by source container movement.
81, for cellular magazine type article dispensers having interrelated ejector and magazine advancing means.
83, for cellular magazine type article dispensers having interrelated magazine advancing and outlet operating means.
228+, for similar combinations including also a follower.
246, for article dispensing devices in which discharge assisting means are so related to a sliding container cover that movement of the cover causes segregation of articles from the source of supply.
269, for article dispensers having reciprocating discharge assistants with outlet closure structures integral therewith.
293, for dispensers having mechanical release means followed by article

manipulation means, the two being mechanically interrelated.

- 249** This subclass is indented under subclass 248. Devices in which the connection between the closure and the discharge assistant is such that, in the normal operation of the device, movement of the closure results in operation of the discharge assistant to discharge articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 37, for dispensers for concurrently separating and distorting flexible articles in which movement of a wall portion causes ejector operation, no follower being included.
- 229, for follower and ejector combinations, the ejector being operated by the movement of a source container cover.

- 250** This subclass is indented under subclass 247. Devices in which the closure is opened by a force imparted to it through an emerging article by a discharge assistant.

- 251** This subclass is indented under subclass 208. Devices having means other than the discharge assistant or the edge of the egress opening for engaging articles other than the article to be discharged to restrain such articles from movement in an egress direction.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 221+, for dispensers having multiple, simultaneously acting and circumposed discharge assistants which are mostly for separating and dispensing stacked cup shaped articles and usually include holdback means.

- 252** This subclass is indented under subclass 208. Devices having a plurality of points of egress towards which the discharge assistant forces the article to be dispensed.

- (1) Note. One egress point may be a pressure operated release for surplus article discharged or those which are rejected by the discharge assistant, through which articles leave the system.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 68, for devices for forming plural stacks from a single source of supply.
- 93+, for devices for dispensing plural articles from plural sources by a single actuation.
- 243, for article dispensing devices having discharge assistant means and in which yieldable walls are provided in the outlet path which move under the pressure of jammed or over supplied articles to allow such articles to escape from or be removed from the discharge path, and see the search notes to that subclass.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 330+ for fluent material dispensers provided with discharge assistants and having plural material outlets, and subclasses 478+ for such dispensers not having claimed discharge assistants.

- 253** This subclass is indented under subclass 208. Devices in which the discharge assistant is carried by or formed in or by a continuous web.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 77+, and 84+, for conveyor belt mounted cellular magazine type article dispensing devices.
- 218, for dispensers having article gripping, conveyor belt mounted discharge assistant means.

SEE OR SEARCH CLASS:

- 198, Conveyors: Power-Driven, appropriate subclasses for conveyor formed of or including in their structure, an endless belt; particularly subclasses 688.1+ for an endless belt having load adhering or friction enhancing means; subclasses 701+ for an endless belt carrying buckets; subclasses 793+ for an endless belt carrying platforms; and 804+ for an apron type endless belt conveyor supporting a load on a surface thereof.
- 222, Dispensing, subclass 415 for fluent material dispensing devices having

endless belt type discharge assisting means.

- 254** This subclass is indented under subclass 208. Devices in which the discharge assistant comprises means movable within the supply container and through the supply to segregate and raise articles to a point of discharge, said point of discharge being at a higher elevation than the articles in the container.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 164, for orienting type article dispensing devices in which movable lifting means engage the articles and lift them to separate them from the source of supply.
- 179+, for stack forming article dispensers in which movable chutes or parts thereof within the supply hopper lift the articles therefrom in dispensing them and forming stacks thereof.
- 190, for dispensers having a vertically movable supply container which may have a normally stationary ejector extending into the supply container to segregate an article in response to the vertical movement.
- 192, for similar devices in which the elevated articles are deposited upon a raised support for manual removal.
- 253, for endless belt carried discharge assistants which move through a supply hopper to separate articles and raise them to an elevated point of discharge.

- 255** This subclass is indented under subclass 208. Devices in which the discharge assistant has means or a surface other than the means or surface which imparts the segregating motion to articles for supporting or holding the segregated articles for removal by hand after their removal from the source of supply.

- (1) Note. The surfaces of a trap chamber of the single inlet and outlet type, as provided for in subclass 266 serve variously to push the article in a segregating direction and to support the article. Accordingly, such devices are classified in subclass 256, indented under this sub-

class, when they retain the articles for manual removal.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 239, for article dispensers in which discharge assisting means deliver segregated
- 254, for devices having a discharge assistant which separates and raises articles to an elevated point of discharge, the discharge assistant usually retaining the article for manual removal.
- 266, see (1) Note above.
- 294, for article dispensers in which mechanical means release articles for delivery to hold-down means.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 205 for fluent material dispensers having nongravity means to feed to traps for manual removal of the material therefrom.

- 256** This subclass is indented under subclass 255. Devices in which the discharge assistant has a recess or pocket for holding the articles for manual removal.

- 257** This subclass is indented under subclass 256. Devices wherein the discharge assistant is so formed as to facilitate ready removal of an article from the recess or pocket as, for example, with a finger receiving slot.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 309, for devices having dispensing type outlets which are relieved to permit ready grasping of articles for manual removal.

- 258** This subclass is indented under subclass 208. Devices in which the discharge assistant is actuated by a motor.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 333+ for motor-operated discharge assistants for fluent material dispensers, and see the search notes thereto for other subclasses in Class 222 which may involve motor operation of such dispensers.

259 This subclass is indented under subclass 208. Devices wherein the discharge assistant applies force to an article only by frictional contact with a surface of the article, the force being substantially tangent or parallel to the surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 43, for dispensers of the concurrent separation and distortion type having positive roller type discharge assisting means.
- 213+, for impaling type discharge assistants which pierce the surface of the article to discharge same.

260 This subclass is indented under subclass 208. Devices in which the discharge assistant or the actuator therefor includes at least one member which is flexible, such member necessarily flexing incident to the discharge operation.

- (1) Note. A spring biased discharge assistant as distinguished from a spring form discharge assistant is not here included, but is classified elsewhere in this group according to the type of discharge assistant.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 253, for article dispensers having deformable discharge assistants of the endless belt type.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 406+ for fluent material dispensers having deformable discharging elements.

261 This subclass is indented under subclass 208. Devices in which the discharge assistant acts directly upon the article being separated and pushes the article against a guide to alter its direction of travel.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 233+, for article direction changing deflectionors or ejectors which cooperate with and enter movable segregating chambers to displace articles therefrom.

- 312, for article dispensers having interior article guiding means and see the search notes thereto for related search fields.

262 This subclass is indented under subclass 208. Devices in which the discharge assistant in discharging articles partakes of more than one character of motion, either simultaneously or successively, in the normal operation thereof (as rotating and reciprocating or reciprocating and swinging, etc.) or partakes of motions which are discontinuous and in different unaligned paths if of the same character.

- (1) Note. Rotation is considered to be only one character of motion.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 40, for article dispensers which distort flexible articles as they are separated and in which the discharge assistants have compound motion.
- 214+, for article dispensers with discharge assistants which have impaling means and which strip articles from the impaling means by a motion of the discharge assistant which may be a compound motion.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 357 for fluent material dispensing devices having trap chamber structures which partake of a compound movement in performing the dispensing function, and subclass 404 for fluent material dispensers having other types of discharge assistants with compound motions.

263 This subclass is indented under subclass 208. Devices in which the discharge assistant is provided with a compartment or cooperates with relatively fixed structure to form a compartment which substantially embraces the article being discharged for at least a portion of the discharge movement.

- (1) Note. See the reference to Class 222, paragraph (d) in search class notes to section VI of the class definition of this class (221) for a statement of the line

between Classes 222 and 221 as to trap (segregating) chamber structures.

- (2) Note. The compartment may be of skeleton or lattice form.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

189, for pivotally mounted supply containers delivering to fixed trap chambers, the relative motion and the nature of the elements being similar to those classified in this and the indented subclasses.

196, for article dispensers of the type in which articles are released for gravity deposit on a support for manual removal and in which the articles are so released by movable segregating chamber discharge assisting means.

210+, for article adhering or gripping type discharge assistants in which the articles are affirmatively held or gripped as they are removed from the source of supply.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 344+ for fluent material dispensers having movable or conveyor trap chambers.

264 This subclass is indented under subclass 263. Devices in which the segregating chamber has both an ingress and egress which are in line so as to provide a through passage.

265 This subclass is indented under subclass 264. Devices in which the segregating chamber partakes of a rotary motion.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 370 for fluent material dispensers having rotary conveyor type trap chambers with axial inlets and outlets.

266 This subclass is indented under subclass 263. Devices in which the segregating chamber has one opening which serves both for the ingress from the supply and for discharge.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

256+, for article dispensers which have segregating chambers in which articles are retained for manual removal after being separated from the supply.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 363+, 366 and 368, for fluent material dispensers having trap chambers of the single inlet-outlet type.

267 This subclass is indented under subclass 208. Devices in which the egress is provided with elastic or spring biased means which serve to retain and hold back the articles in the supply source and against which means articles are successively brought to bear by an ejector as they are discharged.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

247+, for ejector combinations involving relatively movable closure means, which closure means act to release articles only after they have been segregated from the supply source.

307, for resilient dispensing type outlets.

268 This subclass is indented under subclass 208. Devices in which the discharge assistant has a character of motion which is alternately forward and backward, to and fro, or in reverse directions in the same path.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

180, for stack forming article dispensers in which oscillating pivoted chute sections operate within the supply hopper to assist discharge of articles therefrom.

232, for article dispensing devices having a follower mechanism combined with reciprocating (including oscillating) ejector means.

238, for article dispensing devices having plural discharge assistants separately acting in series, all of which are reciprocating (including oscillating).

292, for article dispensers in which articles which have been segregated by grav-

ity release means are acted upon by force applying means to cause a reciprocating movement thereof.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 409+ for fluent material dispensers having reciprocating (including oscillating) discharge assistants, and see the search notes thereto.

269 This subclass is indented under subclass 268. Devices in which the egress opening is provided with a closure, the closure, and the discharge assistant being rigidly connected.

SEE OR SEARCH THIS CLASS, SUBCLASS:

37, for dispensers which concurrently separate and distort flexible articles and in which ejecting means are actuated by source container section movement.

149, for article dispensers combined with igniting means in which movement of a container part initiates operation of the combination device.

228+, for article dispensers having follower structures combined with ejecting means in which the ejecting means is interrelated with the source container cover for cooperation therewith.

246, for dispensers which segregate by sliding movement of a cover relative to container.

247, having ejecting means and relatively movable outlet closure structures.

270 This subclass is indented under subclass 268. Devices in which the discharge assistant includes an article engaging part or section which is drawn back toward or within its supporting means to avoid jamming or interference with other articles on its return stroke.

SEE OR SEARCH THIS CLASS, SUBCLASS:

262, for article dispensing devices in which discharge assistant means have compound motion for effecting the segregating function.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 343 for fluent material dispensing devices having discharge assisting means provided with retractable projections.

271 This subclass is indented under subclass 268. Devices in which a discharge assistant is resiliently urged to discharge an article in its return to rest position.

SEE OR SEARCH THIS CLASS, SUBCLASS:

276, for article dispensers having other types of spring biasing for reciprocating discharge assistants, and see the search notes thereto.

272 This subclass is indented under subclass 268. Devices in which the motion of the discharge assistant is imparted by means having motion relative to the discharge assistant.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 505+ for fluent material dispensers having relatively movable actuators for outlet elements, and see the search notes thereto.

273 This subclass is indented under subclass 272. Devices in which motion of the discharge assistant is imparted by the movement of a tapering or eccentrically curving body.

274 This subclass is indented under subclass 272. Devices in which motion of the discharge assistant is imparted by the movement of rigid linkages turnable on pivots.

275 This subclass is indented under subclass 272. Devices in which the motion of the discharge assistant is imparted by the movement of a rotatable body by rolling contact.

276 This subclass is indented under subclass 268. Devices in which the discharge assistant is resiliently urged in either of its directions.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 336+ for fluent material dispensers having biasing means generally, and see particularly

subclasses 340+ for such devices in which the biasing means is for a reciprocating piston or follower type material impelling device.

- 277** This subclass is indented under subclass 208. Devices in which the discharge assistant has movement about a fixed axis in one direction only.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 42+, for article dispensers of the concurrent separation and distortion type having rotary ejecting means.
- 167, for orienting type article dispensers having rotatable or oscillatable means to effect the selective separation of articles from a source of supply.
- 182, for article dispensers of the stack forming type in which members rotatable or oscillatable about inclined axes are effective to segregate articles from a source of supply.
- 203, for article dispensers having means to agitate the articles in the supply container and including rotary discharge assisting and agitating means.
- 222+, for dispensers having multiple, simultaneously acting and circumsposed, rotary discharge assistants.
- 231, for dispensers including followers combined with rotary ejectors.
- 237, for dispensers having other types of plural discharge assistants, all of which have rotary motion.
- 265, for article dispensers having movable segregating chamber type discharge assistants which partake of a rotary motion.

SEE OR SEARCH CLASS:

- 111, Planting, subclasses 177+ for rotary discharge assistants for seed dispensers claimed in combination with a planting machine.
- 222, Dispensing, subclasses 410+ for fluent material dispensers having rotary discharge assisting means, and see the search notes thereto.

- 278** This subclass is indented under subclass 208. Devices in which the discharge assistant comprises a nonsolid force applying medium.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 211, for discharge assistants comprising suction carriers for articles.
- 258, for article dispensers which are operated by motors, including fluid motors.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 630+ for fluent material dispensing devices having fluid flow discharge means, and subclasses 394+ for fluid pressure discharge assistant means in fluent material dispensers.
- 406, Conveyors: Fluid Current, appropriate subclasses for apparatus wherein carriers are pneumatically dispatched between stations or terminals. See particularly subclasses 108+ for 221 type dispensers which serve as intakes to fluid current conveyors.

- 279** This subclass is indented under subclass 208. Devices in which the discharge assistant applies a force which is exerted through all of the articles tending to move the entire supply of articles toward the egress outlet, and has motion relative to other structure which supports or contains the supply of articles.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 20, for article dispensers in which latch means on a follower engage a discharge means to inhibit further actuation of the discharge means when the source of supply is empty.
- 52, and 56+, for dispensers for concurrently separating and distorting flexible articles, said dispensers having followers.
- 226+, for article dispensers having plural discharge assistants one of which is a follower.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclasses 386+ for fluent material dispensing devices including follower structures, and see the search notes thereto.

- 312, Supports: Cabinet Structure, subclass 71 for cabinet structures having article removal facilitating means and a follower for stacked articles.
- 280** This subclass is indented under subclass 279. Devices including additional static means in the path of the moving supply serving to effect movement of the leading articles sidewise of the said supply toward the outlet.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 311, for article dispensers, having deflector means for partially separating articles from a supply source.
- 312, for article dispensers having interior article guiding means, and see the search notes thereto.
- 281** This subclass is indented under the class definition. Article dispensers in which a supply container or dispensing means associated therewith has an egress opening and some other opening, the latter opening being for replacing the supply when depleted, or for affording admittance for some other purpose, as for example, for adjustment or for clearing of jams.
- (1) Note. Shifting or removal of the container or a part thereof to give access to the handling means is included.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 61+, for article dispensers of the type which concurrently distort articles as they are dispensed and which are provided with separate replenishment inlet means.
- 66, for similar structures in which the separate inlet is for the insertion of a replacement article to cause dispensing.
- 228+, for other source container covers which additionally include a discharge assistant which cooperate with or operate in said cover to segregate articles.
- SEE OR SEARCH CLASS:
- 222, Dispensing, subclasses 478+ for fluent material dispensers having plural openings or discharge guide for purposes of refilling access, etc.
- 282** This subclass is indented under the class definition. Article dispensers having either (1) an outer covering enclosing the dispenser in whole or in part or (2) particular means for maintaining a dispenser unit or entity against the force of gravity, such means being more than the mere means of sustaining one part of the device relative to another or mere nominal base or pedestal means.
- (1) Note. The maintaining or supporting means or the exterior casing must be in addition to the wall structure of the article holding container or magazine and its discharge means. Thus, if the casing serves directly as a magazine or hopper and its extended sidewall merely houses the actuating means or an outlet chute or spout, classification is not in this group but in appropriate other subclasses. Conversely, if supporting means or casing structure in addition to that which merely houses the articles or dispensing means is significantly claimed, or if a particular supporting or maintaining means or casing structure is claimed, classification is in this and the indented subclasses.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 45+, for similar combinations in dispensers which concurrently separate and distort flexible articles.
- 185, for article dispensers which are supported on the body or otherwise supported for mobility.
- 186+, for supply containers which are mounted in such a way that dispensing of articles depends upon motion of the containers.
- 191+, for enclosed dispensers including means delivering the segregated articles to an exterior stationary article receiving support.
- 197+, for article dispensing combinations including a supply cartridge or container removable from an enclosing casing.

- 287, for article dispensers having a removable container which encloses the supply of articles.
- SEE OR SEARCH CLASS:
- 222, Dispensing, subclasses 173+ for fluent material dispensing combinations including casing or support structures, subclasses 325+ for fluent material dispensers having cartridges or removable chambers as the supply source thereof, and subclass 179 for foot pedal operated fluent material dispensers.
- 248, Supports, appropriate subclasses for support structures, per se, or in combination with nominally included containers of various types.
- 312, Supports: Cabinet Structure, appropriate subclasses for cabinet structures including article holding means of types not involving dispensing under this class definition.
- 283** This subclass is indented under subclass 282. Devices in which the article dispensing device is supported in its operative position, by either (1) means of greater height than the dispensing device and from which the dispensing device is hung, or (2) by a frame member attachable to the dispensing device and, at one side thereof, to a wall or other supporting surface.
- SEE OR SEARCH CLASS:
- 222, Dispensing, subclass 180 for fluent material dispensers which are bracket or suspension supported.
- 248, Supports, subclasses 200+ and 317+ for brackets and suspended supports in general.
- 284** This subclass is indented under subclass 282. Devices in which the support has weight means incorporated therein to stabilize the structure against movement.
- SEE OR SEARCH CLASS:
- 222, Dispensing, subclass 463 for fluent material dispensers having weights incorporated in the receptacle structure.
- 285** This subclass is indented under subclass 282. Devices in which the support is of such structure that the receptacle which forms the source of supply is held in a position in which its longitudinal axis is inclined to the horizontal.
- 286** This subclass is indented under subclass 282. Devices in which the casing or outer covering is of such proportions and so positioned relative to the dispenser as to provide an intervening space between the casing and the dispenser.
- (1) Note. The space between the dispenser and the outer casing must not be for removable storage of articles or other material but merely for dead air or non-removable material. Where such a space stores matter for dispensing or for other types of removal, classification is in this class, in subclasses 92+ and especially in subclasses 97+ where the spaced covering provides a nondispensing compartment.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 92+, and especially 97+. See (1) Note above.
- SEE OR SEARCH CLASS:
- 222, Dispensing, subclass 131 for fluent material dispensers having at least one compartment, container or spaced jacket which is not for dispensing, and subclass 183 for jacketed fluent material dispensers.
- 287** This subclass is indented under the class definition. Article dispensers having a receptacle disconnectibly associated with dispensing, release or outlet means in such a manner as to house the articles to be dispensed.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 197+, for article dispensers in which a supply enclosing container (cartridge) is removably insertable within an enclosing casing or housing.
- SEE OR SEARCH CLASS:
- 222, Dispensing, subclasses 325+ for fluent material dispensers having an

insertable supply cartridge or removable supply container.

- 288** This subclass is indented under the class definition. Article dispensers having a segregating chamber so connected to the source of supply that the organization must be tilted either to segregate an article to place it in the chamber or to discharge the article therefrom.

(1) Note. The distinction between this subclass 288 and subclasses 186+ is that in the patents placed in the latter group there must be a claimed mounting for the container.

SEE OR SEARCH THIS CLASS, SUBCLASS:

186+, for dispensing supply containers movably mounted for article dispensing purposes. See (1) Note above.

246, for dispensers, usually of the pill-box type, in which the receptacle cover and container are slidingly moved relative to one another to segregate an article, and the dispenser is then tilted to discharge the article.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 454+ for similar tiltable container trap type dispensing devices for fluent material.

- 289** This subclass is indented under the class definition. Article dispensers in which articles to be dispensed are segregated from a source of supply by the alternate interposition and removal of means in the path of normal gravitational movement of the articles.

SEE OR SEARCH CLASS:

222, Dispensing, subclass 476 for fluent material dispensers having spaced, alternately seated flow controllers or closures for a single outlet.

- 290** This subclass is indented under subclass 289. Devices having means for applying a force to cause nongravity movement of the segregated articles subsequent to the segregation of such articles from the source of supply.

SEE OR SEARCH THIS CLASS, SUBCLASS:

156+, and 171+, for dispensing devices including article orienting means and especially subclasses 171+ for orienting by the manipulation of successive individual articles which have been previously segregated from a source of supply.

224+, for article dispensing devices including discharge assisting means and having subsequent article manipulating means.

- 291** This subclass is indented under subclass 290. Devices in which the means for applying a force is of a type which rotates the vertical axis of the articles through substantially 180°.

- 292** This subclass is indented under subclass 290. Devices in which the means for applying a force has a back and forth straight line motion.

SEE OR SEARCH THIS CLASS, SUBCLASS:

268+, for article dispensing devices provided with discharge assisting means of a reciprocating nature, and see the search notes thereto.

- 293** This subclass is indented under subclass 292. Devices in which the means interposable and removable from the path of the articles to effect segregation thereof and the means to apply a force to subsequently move said articles are mechanically co-related so as to have controlled movement relative to one another.

- 294** This subclass is indented under subclass 289. Devices having means to receive and support segregated articles after they have been dispensed by the releasing or separating means and having associated therewith some means to detachably clamp or grip such articles.

SEE OR SEARCH THIS CLASS, SUBCLASS:

239, for similar devices in which article segregation is caused by discharge assisting means and see the class definition for a discussion of the relationship of this subclass and of Class 221

in general to the various work modifying and work feeding classes.

- 295** This subclass is indented under subclass 289. Devices having a blocking means preventing the operation of the article segregating means, such latter means in the normal gravitational path of movement of the articles being operated by the weight of the articles.

SEE OR SEARCH THIS CLASS, SUBCLASS:

151+, for means blocking or disabling an ejector or releaser and having a force applying means operative to affirmatively operate said ejector or releaser, and see the search notes thereto.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 491+ for fluent material dispensers having outlet elements operated by the pressure (weight) of the contents.

- 296** This subclass is indented under subclass 289. Devices in which the means interposable and removable from the path of the articles is so arranged, either by the placing of pluralities of such elements or otherwise, as to result in the segregation of more than one article at each cycle of operation of the device.

- 297** This subclass is indented under subclass 289. Devices in which there are two or more sets of removable and interposable members, the sets being positioned at spaced points about the periphery of the discharge path of the articles, and acting on the same article at the same time to control the release of the articles.

SEE OR SEARCH THIS CLASS, SUBCLASS:

221+, for article dispensers having multiple discharge assistants which are similarly placed and actuated, i.e., multiple, simultaneously acting and circumsposed.

SEE OR SEARCH CLASS:

312, Supports: Cabinet Structure, subclass 43 for cabinet structures for cup shaped articles but not including a dispensing feature.

- 298** This subclass is indented under subclass 289. Devices having a plurality of interposable and removable members which are separately mounted at positions spaced along the discharge path of the article and which have movement relative to each other.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 425+, especially subclass 445 for fluent material type dispensers having stationary trap chambers with cut-offs therefor.

- 299** This subclass is indented under subclass 289. Devices having a plurality of alternately interposable and removable members which are spaced along the discharge path and are immovably connected with one another by virtue of attachment to a common supporting element.

SEE OR SEARCH THIS CLASS, SUBCLASS:

263+, for discharge assisting movable segregating chambers, some of which are in the form of plural integral transversely acting article embracing members which not only control gravity movement of articles but also impart an affirmative segregating force thereto.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 451+ for fluent material type dispensers having stationary trap chambers with rigidly interconnected or unitary cut-offs for both the inlets and outlets thereof.

- 300** This subclass is indented under subclass 299. Devices in which there are at least three commonly supported, interposable and removable members spaced along the path of egress.

- 301** This subclass is indented under subclass 299. Devices in which the supporting element is so mounted as to have angular back and forth movement about the point of mounting.

- 302** This subclass is indented under the class definition. Article dispensers in which the egress opening for the articles is provided with means which initially block passage of article through

said opening and which must be broken, torn, or otherwise ruptured to allow the passage of articles therethrough.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

31+, for article dispensers having frangible outlets in which a separate instrumentality is included in combination with the frangible or knockout portion, to cut, pierce or break it.

SEE OR SEARCH CLASS:

220, Receptacles, subclass 265 for frangible or knockout type closures for metallic receptacles, and subclass 260 for opening devices of the closures of metallic receptacles which are combinations of cutting, puncturing or ripping means with weakened or frangible portions of such receptacles.

222, Dispensing, subclasses 541.1+ for dispensing devices of the fluent material type provided with frangible elements for the outlets thereof, and subclasses 81+ for combinations of such structures with cutters or punches to form dispensing openings in the containers.

229, Envelopes, Wrappers, and Paperboard Boxes, subclasses 200+ for severing means for opening a paperboard box.

303 This subclass is indented under the class definition. Article dispensers comprising an egress opening of lesser extent than the dimensions of the articles to be delivered as stored, or having some other means whereby succeeding articles are successively retarded or held back from escape therethrough.

(1) Note. See "General Statement Of Class Subject Matter" C "(1) Discharge Outlet Means" subsection (1) for a discussion of discharge outlet means as provided for in this class.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

33+, for dispensers for flexible articles in which the outlet openings are of lesser extent than the articles and in which the articles are distorted as they are separated.

SEE OR SEARCH CLASS:

222, Dispensing, subclasses 566+ for fluent material dispensers having nozzles, spouts or pouring devices.

304 Devices under 303 in which the dimensions of the opening or the retarding means are selectively variable.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

44, for dispensers from which flexible articles are concurrently distorted and separated and which are adaptable for use with different size articles.

241+, for article dispensers having discharge assistants and size adjusting means, particularly subclass 241 for outlet size adjusting means.

305 Devices under 303 in which the dispensing unit is initially in substantially planar knock-down form, and which is folded to form the dispensing assembly.

SEE OR SEARCH CLASS:

229, Envelopes, Wrappers, and Paperboard Boxes, subclasses 100+ for a folded blank paperboard box.

306 This subclass is indented under subclass 303. Devices in which the egress opening is provided with a closure means.

(1) Note. See the class definition, Glossary for a definition of the term "closure".

SEE OR SEARCH THIS CLASS, SUB-CLASS:

247+, for article dispensers having discharge assistants and relatively movable outlet closure means.

269, for article dispensers having reciprocating discharge assistants with integral outlet closures.

307 This subclass is indented under subclass 303. Devices in which the egress opening is provided with elastic means which tend to return to normal shape after being distorted by the withdrawal of an article.

- (1) Note. In this and the indented subclasses, “resilient” or “elastic” is construed to include spring biased article retaining or hold back means which means is effective on each article successively.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 243, for yieldable wall structures for emergency release of articles being forcibly discharged, in case of jamming or over-supply by the discharge assistant.

308 This subclass is indented under subclass 307. Devices comprising a plurality of elastic means which are spaced along the discharge path to successively engage the articles upon withdrawal thereof.

309 This subclass is indented under subclass 307. Devices in which the egress opening is relieved exposing a portion of the article to thereby permit grasping of the article for removal.

- (1) Note. These devices are by disclosure mostly adapted for slender, cylindrical articles, such as matches.

310 This subclass is indented under subclass 307. Devices in which the elastic means comprises a multiplicity of members supported along one edge only.

311 This subclass is indented under the class definition. Article dispensers in which a means to conduct the dispensed articles to a discharge point in provided with a portion near said point which abruptly deviates from the normal direction of the conducting means in order to dispose the last article or articles in a more accessible location or position.

- (1) Note. See “General Statement Of Class Subject Matter” C, subsection 2 (c) and “Receptacles, Cabinets, Racks, and other Static Structures” of the class definition for further discussions of this subject matter, including statements as to the lines with other classes.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 312, for article dispensers having interior article guiding means, and see the search notes thereto.

312 This subclass is indented under the class definition. Article dispensers not otherwise provided for.

- (1) Note. For example, in this subclass are accumulated, as originals and cross-references, interior guiding means for directing articles to the outlet as in a thin stream, etc.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 41+, for dispensers of the concurrent separation and distortion type having stationary guide or abutment means to deflect the leading edges of flexible articles as they are moved toward or through a discharge outlet.

- 55, for dispensers of the concurrent separation or distortion type having stationary guide or abutment means acting on noncoextensive folds.

- 261, for article dispensers in which an ejector acts directly on an article being separated and pushes the article against a guide to alter the direction of travel.

- 280, for article dispensers in which a follower and a static means in the path of the moving supply causes movement of the leading article sideways of said path towards an outlet point.

- 311, for article dispensers having a deflector or material guide for partially separating articles being conducted along a path to a discharge point.

SEE OR SEARCH CLASS:

- 222, Dispensing, subclass 564 for fluent material dispensers having interior material guides or restrictors.

END